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I

THE COMPETENT AND THE CROWD[1]

The modern world finds itself confronted by a problem which has been slowly growing thru the centuries, and which must sometime be solved under penalty of seeing some nations relapse into barbarism.

One of the most striking characteristics of modern civilization, and one which has been greatly misunderstood, is the increase of difference in mental capacity and, consequently, in social position. Notwithstanding the theories of equality, and the vain attempts of the makers of laws, this intellectual differentiation tends to increase, because it is the result of natural and necessary conditions which no laws can change.

The progress of technical skill has become the real motive power of our modern civilization. By its increasing complications it has resulted in exacting such vast theoretical and practical knowledge, such bold initiative, and judgments so sure that only surpassingly gifted minds may rise to great heights. While the capacity of those who direct has increased, that of those who execute finds itself diminished. The division of labor and the development of machinery have made the task of the workman so easy that apprenticeship is no longer necessary.

Distinct classes have thus been formed, separated from each other by an ever-widening gulf. Education but rarely permits

[1] Translated for the EDUCATIONAL REVIEW, by permission, from *L'Opinion*.

one to overstep it, because education gives a part only of the necessary qualifications for modern success.

It is certainly exasperating for minds dominated by the passion for equality to see the rôle of the select few increase in importance to such an extent that the world can not do without them. This phenomenon, however, is inevitable. If we examine separately all the elements of a civilization we shall soon see the importance of the competent. To them alone are due the scientific, artistic, and industrial progress which make the strength of a country and the prosperity of thousands of toilers. If a workman today earns three times more than he did a century ago, and enjoys comforts unknown to a nobleman of the time of Louis XIV, he owes it solely to the competent, working for him, much more than he works for them.

The continually increasing share of the skilful has, by that very fact, increased their labor also. The eight-hour day is not for them. By crushing work only does modern skill, especially industrial skill, result in discoveries and progress. The competent often attain wealth, but it is that very wealth which vexes the spirit of equality. In reality the industrially competent continually oscillate between riches and poverty, without hope of a middle course. Riches are theirs if all is well ordered, combined, and directed; failure and ruin are theirs if the smallest error is committed. Great manufacturers may not make mistakes. The appearance of riches often hides great anxieties, for should a man who has just completed a factory, provided with the best machinery, find a new discovery or unexpected competition arise, it suddenly forces him to an entirely new beginning. Competition has become so bitter, the discoveries of laboratory workers so swift, and instability so general, that a restful spirit is impossible to the man who directs an undertaking.

Civilizations of the modern type are created by the competent, and can only live and thrive thru them. This point has to be made evident to enable us to understand the problem to which I have already alluded. Whilst scientific progress

has brought the competent, with superibr mentality, to direct the mechanism of modern life, the progress of political ideas has given to the mentally inferior the right to govern, and, thru the medium of their representatives, the opportunity to give way to the most dangerous fancies. Certainly if the crowd chose as guides the competent who lead civilization, our present problem would not exist; but that choice is only exceptionally made, for an increasing antagonism separates the competent few from the many. Never were the competent more necessary than today, and never were they so unsympathetically tolerated. The intellectually competent, if they are poor, are endured, for they are little known. The rich, industrially competent are no longer viewed with favor, and so-called social laws decreed by representatives of the multitude have no other object but to despoil them of their riches. Thus have modern societies ended by dividing themselves into distinct classes, the echo of whose struggles will fill the future.

How can we reconcile such opposites as these? How can we make a select few, without which a country is as nothing, live in contact with an immense mass of toilers who aspire to crush those elect with all the fury that the barbarians once put into the sack of Rome?

The problem is difficult, but not insoluble. History teaches that crowds are really conservative, notwithstanding their apparently revolutionary instincts, and that they have always reestablished what they destroyed. It is, therefore, certain that the most destructive of popular triumphs would not long arrest the evolution of a country. Unfortunately, the ruins of a day sometimes require a century for their repair. It is better, therefore, to strive to prevent them.

An apparently simple remedy would be to put a check on popular government. The simplicity of this idea beguiles many minds, but it is visionary; for in all countries the democratic evolution of government proves that it corresponds to certain psychological states against which recriminations are in vain. The most elementary wisdom teaches that we must adapt ourselves to that which we can not avoid. It is, therefore, the part of the competent to adapt themselves to popular

government, and to regulate and direct the fantasies of the greater number, as an engineer regulates and controls the force of a torrent.

It is consoling to realize that the dogma of popular sovereignty is no more absurd than the religious dogmas by which men in the past have guided their lives, and by which many men continue to guide them still. It would even seem, if one may judge by the teaching of history, that the human mind adapts itself more easily to absurd ideas than to rational ones. One may, indeed, say that it ends by adapting itself to everything.

In reality, to adapt the competent to the system of government by the crowd would not be so hard a task if politicians, who foster illusions, had not sown in the minds of the working masses the germs of errors and hatreds which maintain the antagonism of which I have spoken. This antagonism will disappear when the crowd becomes conscious of its own interest and discovers that the disappearance or the weakening of the competent would mean poverty and ruin for everybody. However elementary this truth may appear, it will be difficult to prove it to the masses. Factories without masters, which are the dream of trade unionists, or workshops directed by delegates of the collectivist state, may have been possible a century ago when technical knowledge was still in a primitive state, but they are impossible now. Advanced socialists, living in an atmosphere of pure illusion and holding themselves aloof from all reality, continue to expound utopian theories, which, if realized, would bring ruin to the simple minds which listen to them. The following advice of a delegate of the working classes, presented to and approved by the Socialist Congress of February, 1910, clearly shows the chimerical ideas which have found their way into the popular mind:

"There is only one way to become free. It is to replace capitalism by collective property, which, *managed by you and for you,* will make free and associated producers of all of you who are now modern serfs on a salary."

A factory directed by workmen would soon become as helpless as a ship without a captain and steered by sailors. Its

life would be short. If it was administered by a delegate of the collectivist state it would last somewhat longer, as the delegate would carefully avoid making any changes; but, instead of progressing, it would soon decline in importance, as would also the wages. For, assuredly, it is not to be believed that officers, having no interest in making improvements, would show initiative and expose themselves to risk of loss and ruin as do the heads of great modern concerns who are seeking to prosper and to develop them.

One need not apologize for asserting these obvious facts, since millions of people do not yet understand them. Knowledge of them is, however, beginning to spread in various countries, especially in England and in Belgium, where socialism has not yet acquired the bitterness noticeable among the Latin peoples, with whom it soon degenerates into a war of classes.

The total lack of comprehension of certain elementary principles makes evident the necessity for a new type of education for democracy. This education must teach a democratic people the real relations existing between the three elements of modern activity: knowledge, capital, and work.

While waiting for that education, not yet undertaken, and which certainly can not be expected from our [French] universities, we must live with the crowd, and because of that we must learn to understand them.

It may be noted at once that popular government does not signify government by the people, but only by its leaders. It is not the multitude that makes opinion. They submit themselves to it, and, after being hypnotized themselves, they impose it with violence upon others. Such is the machinery of a movement of opinion. Never, indeed,—or rarely,—do crowds determine such movements. They give it an irresistible impulse, but they do not create it. At the time of the execution of Ferrer, of whom Parisians had never before heard, a few leaders conducted 50,000 men to attack the Spanish Embassy. Stirred by the appeals of these leaders, but otherwise without any understanding of what they were doing—for they knew nothing of the initial movement,—the

crowd engaged in all manner of violence, in plunder, and even in murder. Somewhat frightened at this, the leaders ordered a peaceful movement for the next day, and the same crowd, so violent one day, showed itself of exemplary conduct on the day following. A philosopher, seeing these thousands of unconscious puppets pass by, ignorant of the threads which held them, would recall the words of Rousseau, "I laugh at the degraded people who are led by demagogs and who dare to speak of liberty without even grasping its meaning, and who, with their hearts full of all the vices of slaves, imagine that to be free it is necessary only to be mutinous."

If that celebrated man, one of the fathers of the dogma of popular sovereignty, had had clearer notions of the psychology of crowds, he would have understood that they differ but little and are always led by the same motives. Their docility is extreme when their guide knows the art of handling them, and that art is quite well understood by the important demagogs of today.

It is, therefore, only in appearance that the millions rule. Modern governments are not really popular governments, but take their direction from an oligarchy of leaders. As these leaders create opinion, it is important to know how they create it. The usefulness of a knowledge of the psychology of the crowd seems plain. Paul Adam, in his splendid work *Le Trust,* has studied the social conflict with great insight. He asserts that, "in a democracy, the knowledge of the crowd must be the principal concern of influential men."

The need of that knowledge struck me about fifteen years ago when I wrote *La Psychologie des Foules,* which dealt with a subject almost unknown then, but which has been much studied since. I have no intention of repeating myself here, and only propose now to note some of the most important phenomena of that sort which have been manifested in the course of recent history.

It may be observed that if the psychology of the crowd is beginning to be known—since the rules that I laid down are now used by the officers of the French army and are taught in the École de Guerre,—they have not yet reached our poli-

ticians. The politicians ceaselessly praise the wisdom, the judgment, and the good sense of crowds, tho these are the very qualities that crowds have always lacked. Crowds sometimes show heroism, a blind devotion to certain causes, but judgment never; and all history is there to prove it. When they have seemed to show judgment, it was in reality because some one man had shown it for them.

Our legislators have but a very imperfect idea of the working of the mind of the crowd. They think, for instance, that gratitude is a collective virtue, and they pile up laws, useless or dangerous, designed to please the crowd. Not suspecting the intense contempt that the crowd has for weakness, they can not understand that by yielding to threats they gradually lose their prestige. Concessions instil in the minds of demagogs the notion that to obtain anything they have only to threaten violently. The day after the law was past giving to railroad employees pensions equal to those of army officers and of many magistrates, these employees, seeing what they could obtain by threats, met again to demand salaries which, if granted, would reduce to almost nothing the value of the company's shares. No doubt they will sooner or later obtain them.

I need not here recall that the collective mind differs altogether from the individual mind. Its manner of thought, its motives of action, even its interests, are different. Of the characteristics of the collective mind we need only remember its entire incapacity for reasoning or being influenced by reason, its simplicity, its emotionalism, and its credulity. Ideas can rarely penetrate it, unless they are translated into short formulas that appeal to the imagination. "Capital is a fat, lazy citizen, fed by the sweat of the people's brow." "The State is the police and the army." "Clericalism is government by the priests." "Socialism is a form of government that will make rich people disgorge and allow workingmen to eat and drink and do nothing." These formulas the collective mind takes hold of.

Politicians have instinctively felt the incapacity of the crowd

to grasp more than one idea at a time, as well as the necessity for short and striking sentences. That is why at election time they seek some formula to use as a platform. "The vast wealth of the churches," "the clerical peril," "the income tax," and others, have each served in turn. The English are past masters in the art of condensation. Their recent electoral campaign gave many examples of the power of simple and assertory formulas. They have, above all, understood the value of pictorial illustration. England was for a time overrun with illustrated posters, without any of those lengthy explanations in which candidates for office in Latin countries indulge. The whole policy of the Unionist party was put into a few formulas: "Taxation of foreign merchandise;" "Increase of England's naval power," which was also written this way, "To vote for the Radicals is to vote against the naval power of England"—a terrible assertion in a country where the humblest mechanic considers the necessity of England's naval superiority on a plane with a fundamental religious truth.

Illustrations make these formulas still more striking. One of the most impressive, and one which certainly gained many votes, was an enormous poster in two parts. On the left, below the date 1900, an immense ironclad represented the English navy; next to it a very small ship represented the German navy. On the right of the poster, under the date 1910, the positions were reversed, the small German ship had become a large ironclad, almost the size of the English giant. The danger to England appeared thus to be evident. It is needless to say that no one thought of verifying by statistics and by facts the real value of the advertisement. That would have been critical reasoning, of which crowds are incapable.

All this maneuvering springs from a complete knowledge of the popular mind, of its emotional quality, its credulity, and from an appreciation of the value of repetition. If the desired results were not always obtained—the English Parliament being now divided into two, almost equal, parts,—it is because the adversaries employed pretty much the same methods and their efforts counterbalanced each other. The unde-

cided voter, therefore, was influenced by his own political group.

Because the crowd is so quick to feel, it can easily be led to an outbreak; because it is so mobile, it can easily be led to retrace its steps. The hero whom it carries to the Capitol will be thrown with the same enthusiasm from the Tarpeian Rock. On the eve of his fall Robespierre was the god of the Parisian populace. The next day it howled invectives and raved with joy behind the cart which carried the fallen idol to the scaffold. Being unable to rely on the power of reasoning, of which the crowd is devoid, demagogs strive to work on their sensibilities. Their adversaries use the same methods, and success comes to the one who shouts the loudest and is the most violent. The need for this violence is such that in the last election English cabinet ministers, men well known for their reserve and correctness of demeanor, shouted abuse in their popular speeches, in the same manner as the Jacobin Clubs of the French Revolution. In a public speech, Mr. Lloyd George, Chancellor of the Exchequer, declared that the House of Lords was a gathering of miserable cowards, not having enough heart to do any good or enough courage to do any harm. Insults of the same kind were repeated every day by various ministers in their constituencies.

One of the last characteristics of the popular mind which I shall mention is its extreme credulity. For it credulity is as unlimited as for a child. For children and for crowds, nothing is impossible. If the crowd asks for the moon, promise it! . . . I can not, indeed, recall any instance of a politician shrinking from such a promise! The most unlikely calumnies may be put in circulation during an election, and they will always be believed; but avoid accusing your adversary of crimes too dark, for that would evoke for him the admiration of the crowd, which has always manifested a high regard for great criminals.

Credulity is limitless in crowds, but it is not their exclusive property. Credulity and not skepticism is our normal state. We all have a certain amount of criticism for matters within the range of our immediate knowledge and interest; but be-

yond that circumscribed horizon we have but faint traces of it. Do not believe too completely in the skepticism of the professed skeptics. They have usually only changed the object of their credulity. Socialistic paradises have replaced the paradises of the older legends. Fallen gods are generally succeeded by turning-tables, somnambulists, and new superstitions. Let us not, however, complain of this universal credulity which surrounds us. Very few factors of civilization accomplish as much. Thanks to credulity, the great and consoling religions have arisen from nothingness, and powerful empires have been built up. It is beneficent credulity which makes faith possible, which preserves tradition, and which upholds the greatness of a country. Faith in an ideal, faith in our country, faith in the future—all those pivots of our mental life have credulity as their guardian. Peoples who lose all faith, lose with the loss of their belief in a soul all motives of action. The future does not belong to them; social institutions are destroyed; they decline from day to day and soon take their place among the forgotten races whose end has been marked by an all-destroying skepticism.

GUSTAVE LE BON

PARIS, FRANCE

II

CONTRIBUTIONS TO THE HISTORY OF AMERICAN TEACHING (V) [1]

"Before you judge a man you must know the secret of his thoughts, of his sorrows, of his feelings; not to be willing to know more of his life than its material events is to make a chronology, the history of fools." In this spirit I shall let my mind fall back on itself and write of a college education as I first began to look at it, and then how it appeared when I participated in it at first-hand.

As far back as my memory runs, I wanted to know what things were in books; about people that I saw or heard of; about far-off nations; fishes, insects, and curious things on the earth, in the seas; where people's spirits went to when they died,—heaven, hell, the "old bad man," and all the other curious things that would come trooping thru the childish fancy of a slender little fellow whose surest refuge was his mother's arms.

Somehow, all these strange, curious, and interesting things I believed were contained in books, except what people had themselves seen and had told to one another. So strong was this passion with me that when I went with my parents to a neighbor's house, if there were a book in sight, I could not rest contented until the book was lent to me to look at, I agreeing not to tear it or soil the pages. This was always far more preferable to me than playing with other children, altho I liked playing so well. Before I could read I lookt at the pictures in books and newspapers, and with a piece of newspaper in hand I would sit and read what I thought it said for hours. At times when conversation lagged among the grown folks, I would ask the owner of the book what it

[1] The earlier papers in this series appeared in the EDUCATIONAL REVIEW for September and December, 1909, January and March, 1910.

told about, and in this way I endeavored to get all the meaning. I remember particularly spending a part of a day looking at a book that had many pictures in it, of which I knew the name of but one—a picture of a pump,—and I questioned the owner an hour or more as to its philosophy, and why the book did not have pictures of men, animals, houses, battles, and ships. From his conversation I gained some knowledge, of which I still retain some very distinct impressions. He went with me into the yard where an old-fashioned pump stood in the well, and he pumped up water and explained in a very simple way its construction and how it worked. While I understood a little of what he said, yet the lesson was one that I regard to this day as a thoroly pedagogical one, in that it opened up a wider field which induced me to want to know more. Never to this day do I see a pump but that first impression comes back in all its vividness, and when later I read Hawthorne's *Town pump* it seemed full of meaning. He told me to look at that book whenever I came to their house visiting and he would tell me more about philosophy. This was before I had ever been to school, and the word philosophy meant very much more than a mere word without any content. In fact, children put more content into words than pseudo-psychologists give them credit for. I can not say how many times I turned over the pages of this book, but in a year or two I had learned to read, and then, when I went with my parents to visit this family on Sundays or of the long winter evenings, I read in this philosophy till I got an inkling of some of the chapters. It filled me with all sorts of thoughts.

It was not far from this time, perhaps the winter after I had first seen this book, that one evening, as I listened to my father and two or three other gentlemen talk about surveying a piece of land, the surveyor mentioned the word "logarithms," and at the first lull in the conversation I asked him, "What is a logarithm?" As I sat there thinking of the word and repeating it to myself, I wondered what kind of a "log" it is. To my inquiry he replied that it was numbers a surveyor used, and it belonged to mathematics. While this was

not satisfying, I thought perhaps that the pump at Mr. Gibson's, which stood up seven or eight feet above the ground, might be a "logarithm." The word "log" I knew, but "arithm" might mean anything.

About this time I listened to my father of winter evenings read Rollin's *Ancient history,* which he had borrowed, and at the table and elsewhere portions of this history were talked over by him and mother, and I really lived thru many of the scenes therein depicted, particularly the more romantic parts of that history. A very deep impression was made on my mind in regard to the manner in which Hannibal extricated himself from the Romans, who had caught him in a trap, and he at night lighted the torches which he had tied to the oxen's horns, thus setting the leaves on fire and following the cattle to a place of safety. I believe that people talked more then of the books they read than they do now, and especially before their children. In addition to the historical and biographical reading, Bible stories were told to us and the Bible was also read to us. Not far from this period I listened to my father read aloud a small history of Napoleon Bonaparte, and while I lookt at the pictures, I could not read the text, but I knew a great deal of what he read, or at least I understood the drift of events. After he had read this book and returned it, he borrowed, and read aloud as was his custom, Buck's *Theological dictionary,* and somehow I regarded this as a very great book that I must read as soon as I could. However, there were two other books that at this time exerted a very deep influence on my life; one was the *English reader,* by Lindley Murray, and the other was Webster's *Elementary spelling book*—the latter because it taught me to spell and because of the short pithy sentences it contained. Father had read in the *English reader* when he went to school, and he frequently read aloud to us from it. I was now nearly of school age, and sister and I had as our outfit a little dinner basket, a bottle of milk, and each an *Elementary spelling book.* I knew my letters and figures, and in ten weeks I had spelled thru the spelling book, except the back part, which was called "The grammar," and I had read all the coarse reading over

to "luminary," and I had tried to read nearly all the "hard reading" in the book over to "condense."

One day as I sat in school I listened to a girl read a lesson in McGuffey's *Third reader* entitled "The consequences of idleness," followed by "The advantages of industry." George Jones was the idler, so the story goes, and he suffered the consequences of his own folly, while Charlie Bullard, a classmate, a hard, diligent student, went thru college and graduated with honor. From that moment I decided that I would go to college, tho I had no definite conception of what it was, except that it was some sort of school for big boys to learn things they did not know.

When the short term school of twelve weeks closed, I traded some trinkets I had for Goodrich's *Second reader,* which I read thru, and this brought around a time for a winter school which would begin the first of December and close the last of February. Sister and I were started to this school, which was nearly two miles distant, and a mile nearer than the school we had attended in the fall. This teacher kept me spelling and reading in the spelling book, but I managed to listen to all the lessons read aloud by the pupils, and I gathered somewhat of the drift of the arithmetic by listening to the young men and boys explaining their "sums," and I made it a point to sit by the "big boys" to watch them at work. Father, too, of evenings taught me to write numbers on a piece of broken slate, for which I had traded a home-made ball covered with "squirrel-skin." He would set me little sums to do. Owing to an acute attack of cold, that settled in my head, we attended this winter school only six weeks. On account of this severe illness some of my relatives gave me "picayunes" and "slick-bits" to take the doctor's medicine, and when I recovered I had fifty cents. When father went to Springfield he took all the money I had to buy a McGuffey's *Second reader* for me, Webster's *Elementary spelling book* for my sister, and a primer for my brother. This purchase exhausted my cash, except five cents, which I lost in the ashes of the fire-place. I read thru the *Second reader* before I went to bed that night, and I must have read

it a dozen or more times that winter, and as sister and I now each had a spelling book, we studied and spelled and read almost daily in them, and then pronounced the words to each other, or our parents would pronounce them to us. It is very wonderful how much children can learn from one another when they want to learn.

In the spring a young woman was engaged to teach a subscription school, and father signed two scholars, as it was called. An aunt lent me a *Third reader,* but the teacher said it was too easy, and father bought me a McGuffey's *Fourth reader* and Mitchell's *Common school geography,* and I was also put to writing each day after a copy set by the teacher. The reading book I read thru in a few days—that is, I read away ahead of the lessons assigned,—and in the geography I recited ten lessons each day, when the teacher cut this work down to two recitations, one in the forenoon and the other in the afternoon. This curtailment gave me ample time to listen to all the other recitations the other children had. Generally each pupil was in a class alone, except in the spelling lessons. There were two spelling classes—a "big" one and a "little" one. This school was a "silent school," and all the women in the neighborhood bitterly opposed the innovation at first, but the opposition soon died out.

Thus far in my progress I had committed nearly every book I had studied to memory, and I had plenty of time to listen to the others read and guess in advance at the words that would come next in each sentence. This was a favorite pastime of mine, and it kept my mind busy running on its own activity. This running-ahead habit in part has stuck to me to the present without any signs of diminution, and it is one source of entertainment that I rather enjoy in listening to speakers, unless they be rapid-firing machines. It was during this summer that I made my first acquaintance with a legal document. The teacher's agreement was at first a verbal one, and at our house one of my mother's brothers, who also taught school during winters and farmed in the summer time, had pretty good knowledge of legal forms. He wrote the contract for the teacher with her patrons. The language

sounded so peculiar to me that I puzzled my brain no little in trying to determine what the party of the first part and the party of the second part had to do with *witnesseth,* all taking place in the County of Sangamon and State of Illinois.

During this summer, being too small to plow, I mist no time, except during corn planting, when I followed the plowman and dropt from three to five grains in the freshly turned furrow opposite the checks that had been made for that purpose. I attribute my progress in geography, reading, and writing to the fact that I then concentrated my attention on so few school studies and on outdoor play. I never studied geography more than one-fourth of the time that pupils now put on that subject, yet I could answer and did know nearly everything in Mitchell's *Geography,* and could locate all the countries, give their areas and population, the boundaries, the mountains, rivers, bodies of water, population of each city mentioned either in the book or on the Atlas, and could tell moreover the color of each country on the maps. Of course, this involved the memory of locality and of facts, and the descriptive readings of the text assisted in fixing this sort of detached information. There was a little bit of system in the process,—we began at the northwest corner and went around to the right. The countries of each grand division were learned at the same time, including their areas, population, boundaries, capitals, etc.; the mountain systems, river systems, bodies of water, etc. That is, things were learned lengthwise and not in the chopped-off fashion as is done in all schools now. This is the way the knowledge was packed into my mind, and it sticks there as ready for instant use as when I first learned it. It would be the rankest heresy to practise that method now, but a little experimenting in that direction might cast some new light on a threadbare subject even now.

My next teacher thought I ought to drop geography and begin arithmetic and also read a lesson once a day in Wilson's *History of the United States.* This school was a "fall" school, as they were then called. I was furnished with a slate, pencil, and Smith's *Arithmetic.* This was a three

months' school, and I devoted much of my time to ciphering in the arithmetic, and a young man had Ray's *Arithmetic* and I helped him in it, so that I virtually was learning from two books at once. This was an advantage to me. No lessons were recited in arithmetic by either of us. I simply read the explanation and then the rule and worked the sums. I went to the teacher very few times, but the young man was with me all the time. I showed him, and he gave me apples and hickory nuts, and he had a sweetheart, but she did not attend school. He told me much about her, but little as I was I kept his secrets. They were married in less than a year afterwards. I think his being in love then rather rattled his arithmetical thinking and was the chief reason he wanted me to help him. He was the only big fellow in the school, and I felt somewhat important that he talked to me as he did. He called the abbreviation "lbs.," "libs," which will give some indication of his attainments in arithmetical lore. He never got beyond compound reduction before his marriage, and he was a slow learner.

When this school closed, which was about the first of December, during mid-winter a gentleman formed a class in arithmetic, which he taught for twenty days. Men attended this class, my father among the number. There were two little boys in that class, and I ciphered nearly thru my arithmetic. Most of those had Smiley's *Arithmetic,* and I became acquainted with this book. No one recited a lesson, but instead the teacher went around and helped those who "got stuck," as it was called. I remember that one married man said his "head had got to wool-gathering," and he needed assistance. The teacher at the close of the school said that my father had made the greatest progress. From what I later learned of his mental powers in thinking out things for himself, I believe the teacher's estimate of him was correct. I had now reached a stage in my mental development when I began to reflect on what I had learned, and to what use it could be put. When I was alone or at work, I began to review in my own mind what I had learned, and, if I found the information was growing dim, as soon as I reached

home I went to my books and lookt it up in order to make sure of it. This practise I have followed during my life.

The next August, after harvesting was over, I started to school again, in the meantime having read Thomas' *History of the United States* (a large volume), Weems's *Life of Marion and Washington,* borrowed from neighbors, and my geography thru twice. I was permitted to cipher out of doors in the woods with the "big boys," and there I did little studying, except to help all of them with their sums. Imagine fifteen or twenty young men seated out in the woods, perhaps a quarter of a mile from the schoolhouse, on a thick mat of grass under a large sugar tree, talking, joking, ciphering, and a few small boys listening, asking questions, and all supplied with apples and sometimes peaches to eat, and once in the forenoon and in the afternoon the teacher coming around to see if any one needed help with his sums, and the reader can readily understand the nature of the work that was actually done in country schools of that date. From what has been said, it would be unjust to infer that these persons were not serious-minded in what they had to do. Every problem usually challenged the attention of all those who comprehended it in part, and also of those who had previously solved it. It was in reality the basic fact of what is now being experimented with as the group system, tho in a more liberal manner than that system is now practised in any schools with which I am familiar. Perhaps to the latest up-to-date teacher it would appear impossible that any subject could be learned without reciting a lesson; yet it was done in most of the country schools when I went to school. In eight weeks after this school began I had reached the last problem in Smith's *Arithmetic,* "The man and the squirrel," an example in the application of the Pythagorean proposition. But I, with two other youngsters, fell into great disfavor about this time. One warm afternoon we went to an orchard, which stood in an old field some half-mile distant from where the boys were ciphering, to get our hats and pockets and shirt bosoms full of peaches. The entire school had permission to go and get peaches there when any one wanted them. A young man,

whose father owned the orchard, had also requested us to go since we had "worked our sums." The children went to this orchard every day at noon for peaches, but only the big boys—outdoor pupils—went during school hours. So we three went to the orchard and gathered almost as many peaches as we could carry, when, on our way back, coming to a nice shade, we stopt, laid down our peaches, and commenced to play marbles. The time past rapidly, I playing against both of them at a game known thruout the United States as "keeps," and, lo and behold! the master came upon us and marched us into the schoolhouse, peaches and marbles, and bid us unload! He confiscated the marbles, and gave the peaches to all the other pupils in the school, and told us we "could not cipher outdoors any more." His decision was right, and we profited from it.

The outdoor cipherers came in at noon and before dismissal in the afternoon to spell in "the big spelling class." Ten or fifteen minutes before the time for the class to spell, the teacher would say, "Get your spelling lesson"; and then pandemonium would break loose. The pupils spelled at the top of their voices, and when the wind was favorable they could be heard a half-mile off. The cipherers broke for the schoolhouse to spell. I never knew pupils who did not like to stand up and spell. Once each day those who ciphered read to the teacher from some book. These readings were not prepared in advance. Each took some book, usually Weems's *Life of Washington* or of *Marion,* or some other book. At this particular school one boy had Dupey's *Hymn book,* and he and I read from it. The next fall he and I read the New Testament.

Up to this time, while I had heard the subject of grammar mentioned, I had never opened a grammar book or heard a recitation. But a young woman came to school the next winter, and our teacher was said to be as good in grammar as he was in arithmetic and surveying, and she had Kirkham's *Grammar* and she recited two lessons each day in it. I was mightily interested in it, and I listened to what she said. She read over a page or two, closed her book, and the teacher

then asked her questions on what she had just read. I could not make much out of it, and, besides, it sounded funny to me. The following winter the teacher told me that I ought to study grammar and history. This man had some little idea of classification, and a half-dozen of us read long history lessons, using Marcus Wilson's *Textbook on United States history,* and we read aloud in a very dull manner. There was a class of five in Smith's *Grammar.* The teaching was very weak and I do not believe that any of us ever caught the spirit or the meaning of the text. It was in no way related to conversation or writing. Certainly it never dawned on any of our minds that it had any value whatsoever. Every day I questioned myself as to its meaning and what use people had for it. All of us could see the utility of spelling, reading, writing, ciphering, history, and geography, but no use for grammar. No doubt our teacher had some views that were never revealed to us. The general direction to all pupils, whether large or small, was, "Get your lessons," and, all things considered, we did fairly well.

There were many bright spots in a child's life, even within the narrow surroundings I have indicated. Children were with their parents much of the time. They heard all the household and business affairs of the family discust, and, by listening to the conversation of their elders, they had pretty clear ideas of what things of a local or general nature attracted public attention. The lives of some prominent men and women in sacred and profane history were often spoken of before the children, and they were exhorted to take these as patterns to be imitated. Washington was always held up to us as an example of truthfulness, justice, moderation, and unselfishness, and other worthy heroes of the American Revolution. The women in the early settlements of the colonies, and those who had lived on the frontiers, were spoken of as real heroines who had contributed a very great deal to making our country great and free.

Another source of information was the sermons preached by the different ministers of the Gospel. The people living in new countries, I am inclined to think, are more serious

and earnest-minded than are a majority of those living in the great commercial and industrial centers. Sermons were discust by those who heard them, and, while these farmers and their wives had never read perhaps a half-dozen books outside their Bibles, yet they had clear ideas of its requirements, and were exceedingly clear-sighted along the line of personal duty and holy living. A striking sermon would be talked about for months, texts of Scripture quoted to sustain or refute it. Even those who were not affiliated with any church organization past judgment on religious doctrines. Such an atmosphere, in which one had to face the most serious thoughts of the present as well as those of the hereafter, would render people contemplative. Ideas struck in deep and remained there, whatever they may have been. Much time was given to reflection and impressions, tho few, perhaps, were abiding with the majority. When a grown person died, the children of the neighborhood did not hesitate to judge him and assign him to his reward according to the deeds done in the body.

It is not to be wondered at that idlers in school were held up to ridicule when so high an estimate was placed on things of the mind as well as of the body. The value of an education was always emphasized by men and women, whether educated or uneducated, as something of priceless value, and all the children imbibed this sentiment as they did a love of country. Never did I hear it advocated as a commercial investment, but that one would better know how to meet the requirements of life on a higher and better plane.

About this time in my progress I came across a small book, entitled *The Beauties of history*. A boy owned it, and he lent it to me to read. It was largely a book of extracts with selections grouped under sub-heads. The author was L. M. Stretch. Later, father bought a copy for me, which I still have. I regard it as a great loss to childhood that other books of the same or similar character have not been prepared for children to read. The selections were chiefly personal and biographical, selected from ancient and medieval history, and

the general tone was uplifting and stimulating. This little volume and the works of Thomas Dick formed my chief outside meditative reading for more than a year, not including what I gathered from my schoolbooks and some other sources. In listening to some elderly men talking on Sundays I learned that Socrates, Plato, Aristotle, and Locke were great philosophers that had lived, but who they were or what they had said or done, were blanks to me. Before this I had heard and read a little about Alexander, Hannibal, Cæsar, Napoleon, as the great warriors, and the preachers had spoken of Joshua and other Biblical warriors. Every boy had heard of some of our own generals—Washington, Greene, Lafayette, De-Kalb, Marion, and Jackson.

A doctor in the neighborhood, so it was spoken in an undertone to the children, had a skeleton stored away in his loft, and many hours I spent at night in bed wondering what it lookt like. My curiosity was great in expecting the unimaginable. During this period of curiosity and doubt, a boy came with his mother from Massachusetts into the village, and he owned Cutter's *Elementary physiology,* which he one day brought to school, and he let me read it. From it I gained a pretty clear idea of the human skeleton when stript of flesh. I borrowed the little book and read it thru several times, and I wondered why such interesting books were not allowed in school for children to read. It was regarded then as a doctor's book. A few months thereafter, an uncle bought a copy of Fowler's *Phrenology, proved, illustrated, and applied.* One day he left it out of his trunk, and I picked it up and read it for more than three hours, when he returned and took it and locked it up. He said I could not understand it. I remembered very distinctly the title of this book, and a few years later I saw it advertised in a New York newspaper, and I sent for it and received it by mail.

My parents had decided to move either to Missouri or Iowa in order to get more land for the children. The idea of a new country with plenty of fish in the streams and wild game on the prairies and in the timber, coupled with the fact of shooting with a gun, fired my boyish imagination to a very

strong pitch, especially as I had read the *American pioneer,* a border warfare book. So in the fall of 1852, when my parents had settled in Adair County, Missouri, a new series of experiments thrust themselves upon me, altho we had moved only about two hundred miles westward. The settlements were scattering somewhat in groups along the streams in the timber. Nobody lived out on the prairie. These early settlers always lookt out for three things: good soil, never-failing water, and abundant timber, and sometimes stone for building purposes. Where we lived rock could not be found to be put under a house or a barn without hauling it about twenty miles.

All these pioneers had a Bible, which they and their children, if old enough, read and talked of; a hymnbook, and an almanac. Some took a weekly paper, and a few had small collections of books which were read and then lent around to those who could or wanted to read. If any one bought a new book the news spread for miles around. A justice of the peace had *The Revised statutes,* and he usually talked of those acts that were permitted and those prohibited when he spoke of legal matters generally. The Methodist circuit riders visited and preached in certain neighborhoods once a month, and the Baptists had their monthly appointments. Wherever there were enough Catholics they had a church, and in those days Protestants frequently contributed toward the erection of Catholic churches. Church feeling never ran high, except when a debate on baptism, infant damnation, predestination, or future punishment, was under headway. The preachers could always tell something about schools and colleges. In fact, they were the purveyors of educational intelligence and they used their influence to induce boys and young men to go to academy and college. Both young and old became acquainted with these self-denying men of whatsoever faith. There was a very general feeling among the common people that the Presbyterians, Episcopalians, and Catholics had a better educated class of preachers than the Baptist and Methodist, but that these two denominations went everywhere among the people—saint and sinner—and were

more easily accessible. This was merely a conceit of the times.

Yet the great storehouse of knowledge I had access to was the writings of Dr. Thomas Dick, the Christian philosopher, who wrote on many subjects and in a clear, flowing style. In the eleven different volumes he treated of many subjects widely different in character. He always appealed to the better side of human nature and to the highest Christian virtues. His writings had much to do in shaping my attitude on many questions. The standard ancient histories were by Rollin and Josephus.

Altho I had tried to work out a system of algebra from hearing two gentlemen talking of algebra one day, my scheme was too cumbersome to be usable. From that conversation I learned that letters were used instead of figures, but I made little headway, and put it aside owing to the complexities my method of attack involved. An opportunity now occurred which opened up a new field to me. A young man had died in a distant county in Missouri where he was attending an academy. His mother and stepfather were near neighbors of ours, and upon the death of this young man his books were brought home and I managed to buy a few of them. I spent all the money I had in buying Davies's *Elementary algebra,* Bourbon's *Algebra, trigonometry, and surveying,* a Latin grammar, Olmstead's *Philosophy,* Butler's *Analogy,* and Salkeld's first and second Spanish books. I began work in earnest in the algebra and geometry and the Latin grammar, and in the evenings I read Butler's *Analogy.* From an advertisement in the algebra I first saw the entire list of books in mathematics under the head of "Collegiate course in mathematics," extending thru analytical geometry, shades, shadows and perspectives, differential and integral calculus. These were mere names to me—nothing more. Strange as it may seem, I made more rapid progress in trigonometry and surveying than I did in plane geometry, because I saw the bearing of this work better. I was simply groping in the dark without a leader, but I felt that the textbooks in mathematics were arranged in the order in which they ought to be studied.

I could see the close connection between arithmetic and algebra, but only a very remote connection between arithmetic and plane geometry. The work in mensuration and surveying pleased me very much, and it was thru mensuration of plane figures that I approached geometry intelligently. I studied the Latin grammar closely and carefully, and it also contained a list of Latin textbooks. I learned nearly everything in the grammar by committing it to memory, which was of great assistance to me in later years. Up to this time I had not seen an academic or collegiate course of study. Yet I had picked up enough from listening to conversations to know that other subjects were included besides Latin, Greek, and mathematics. For instance, I had heard two men in a store talking of Locke's *Human understanding,* and this conversation set me to thinking and guessing what philosophy might be and what things philosophers talked about. Could I have seen a college graduate, I would have asked him what branches were studied in college, and what each branch treated of.

During these years I kept steadily in mind that I would go to college, and I worked persistently with that object in view. By getting some textbooks by mail I could see what was required in Latin, Greek, mathematics, natural sciences, rhetoric, literature, logic, political economy, and mental and moral philosophy. As I could spare the money, I began buying books and reading them carefully, so that when I did once get into college no subjects would be absolutely strange to me. I knew English grammar, geography, arithmetic, United States history quite well, and I could read, spell, and write a rapid, legible hand. I had a fairly good knowledge of elementary algebra, geometry, plane and spherical trigonometry, and some knowledge of surveying; the *Latin grammar* (Stoddard's) I knew quite well, and had read Jacob's *Latin reader,* some of Cæsar, and an oration by Cicero. Comstock's *Natural philosophy* and Olmstead's I had studied quite thoroly, and also Comstock's *Chemistry,* Mrs. Lincoln's *Botany,* Burritt's *Astronomy and geography of the heavens,* and could pick out the constellations in the northern hemisphere.

I had read Wayland's *Political economy, mental and moral*

science, but nothing in geology, except what Dick had written in his works. Yet I had heard the age of the earth estimated from the cutting away of the channel by the Niagara River. In the meantime I had bought a copy of Cutter's large book on anatomy, physiology, and hygiene, and had read it two or three times till I knew it quite well. In Greek I had learned the alphabet, and I could read Spanish well enough to understand it. Thru these years I had kept up my reading on phrenology, water cure, and allied topics. From 1853 to the fall of 1857 I spent much spare time in reading and studying the subjects mentioned, so that when I started in to school at Canton, Mo., September, 1857, I went there with a large variety of scrappy knowledge, with some of it very clear-cut and definite. I loaded up heavily and recited the greater part of each day. Enough to say, I past examination in twenty definite subjects during the first year. Nearly all the subjects were reviews. At the time I speak of, students read all each book contained. Instead of reading three or four books of Cæsar as is now required, we read the seven books of the *Gallic war.* We had our grammars and lexicons at hand while preparing a lesson, and, after becoming somewhat familiar with an author's style, one could take long lessons. I used Anthon's Cæsar, Virgil, Cicero, Sallust, Horace, Tacitus, and Livy. These texts had notes, but no vocabularies. The first four we spent most time on. We studied these for two purposes—the language and literature, and as history. The course in Greek included the texts offered fifty years ago, and usually the New Testament was read in Greek. The courses in both Latin and Greek covered four years each, and, besides, there were always some who would take French or German instead of Latin and Greek. The traditional studies were Latin, Greek, mathematics thru spherical trigonometry, optional analytic geometry, differential and integral calculus, astronomy, and mechanics; but natural philosophy and chemistry were required.

Rhetoric and English literature were studied by all who reached the sophomore and junior years, and the presidents of the smaller colleges usually taught the classes in political econ-

omy, *Story on the constitution,* moral and mental philosophy, and evidences of Christianity, and sometimes ancient and sacred geography—about a half-year to each of these. Sometimes the professor of mathematics taught a small class in logic. The logic I studied was Hedge's. I got nothing of any value out of it, except the rules governing debates. The book is hardly a good primer of logic, not to mention a treatise on that subject. Whateley's *Logic* is much better, as I afterwards learned, but it was not used where I studied.

As I now look back over my school days of these past years, I can see that I had a good course in chemistry. The text was Silliman's of Yale College. Our class put a year on it. We performed a few of the experiments, but the professor did the most of the work lest we should break the apparatus. The botany that I had at first learned was of little use, because it was based on the Linnean system, and I had later to turn to the natural system of classification. We read one half a year Goodrich's *Ancient and modern history of the world* and Whelpley's *Compend.* In addition we had access to a library that had two or three thousand volumes in it. We had our literary societies as they are now, but our sessions were always held on Friday afternoons. If a youngster wanted to go with a young woman to church or a social gathering, he got permission from the president, who was decidedly liberal if the applicant stood well in his classes. The general conduct of the students was lookt after carefully, and if one stept aside, he was talked to in a fatherly manner. There were not so many students in these small colleges but that the regular teachers kept in close touch with them and advised them wisely. We learned a great deal about our teachers, and they learned more of each of the students. I ought to mention that the students studied a text especially in history most thoroly with such helps as could be obtained from classical and biblical dictionaries. My classical dictionaries were Ainsworth's and Lemprière's; also I had Covell's *Bible dictionary.* We had notes in our Latin and Greek authors, but no vocabularies. Another advantage over modern students, we were not sent out to read scrappy extracts from

magazines, newspapers, government reports, *ad nauseam*. We were put to doing certain definite things in order to get control of them for future use. We played games to a finish, such as long town; town ball, which was a kind of rudimentary foot-ball; shinny in cold weather to keep all warm and going; in the warm weather in spring and fall, jumping, wrestling, running foot-races, and occasionally a fight to enliven things generally—tho these were uncommon occurrences, but to call one a liar was equivalent to a challenge to a fist fight. The only setback to our different kinds of exercises was the cold winter weather, which cut off all outdoor winter games except shinny and snowballing.

I will say that I took the general and Latin course. It would have been the general and classical had I taken the Greek. This I studied later. I did not graduate, or rather I left in April on account of ill-health before graduation in June, altho I had prepared my thesis and it was accepted.

Nearly all the boys and young men in both schools at Canton had decided what line of work they intended to follow after leaving school, and they shaped their courses of study with that in view. As a class of boys and young men, perhaps picked out from among hundreds of others, they were serious-minded and felt the need of an education in order to accomplish certain purposes in the different spheres of life. They were representatives chiefly of the farm-life extending as far south as Georgia and including Tennessee, Kentucky, Virginia, Illinois, Missouri, and Iowa. Outside of school and home interests, more attention was given to the proceedings in Congress than one would suspect at this time. Canton was the home of the Honorable James S. Green, then United States senator from Missouri, and, in my judgment, the ablest mind and the most logical one that ever went from Missouri to Washington City. I have a Smithsonian report of 1857 which he gave me, and it was thru these reports that I have kept up chiefly with the progress in the natural sciences since then.

All these were formative influences, and they did much to shape our larger spheres of thinking. Even the slavery ques-

tion was one over which we had many arguments. Opinions were diverse. In 1861 nearly all my schoolmates went into the Southern army. They were honest, manly fellows, and only a very few ever returned. There were only two of us who did not go there.

The great advantage to me in the work that I did with books from 1853 to 1861 was this: that I was getting into strong, systematic habits of study, and revolving in my own mind how to shape what I knew into usable forms and masses. With the work that I had to do on the farm I was as industriously engaged in study as when I was in school, but I did not have so much time for study. All that I had done was preparatory to a much larger field than the college could possibly offer. I could now prosecute certain lines of work with books alone, and I could think some of the thoughts that others had put into book form. All my lines of study were planned systematically and followed almost relentlessly until I was willing to turn to something else. I am, therefore, indebted to my teachers for starting me on the road and to my own mental and motive machinery for keeping me going at a fair rate of speed ever since.

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III

THE MONITORIAL SYSTEM IN FRANCE

Our estimate of the intrinsic value of the monitorial system is so low that we marvel the estimate a century ago should have been so high, and that thousands of schools should have been established to embody the system. And we marvel even when we have made due allowance for the fact that a monitorial school may have been an expression more of religious than of educational zeal,—that its primary purpose may have been to promote the teaching of the theology in which the founders believed, or perhaps, to prevent the teaching of the theology in which they did not believe.

But if the success of the system in the country where it was invented is surprizing, its success in France,[1] where it was admitted to be an importation, is still more surprizing.

The first edition of Bell's *Experiment* was published in 1797, and the first edition of Lancaster's *Improvements* in 1803, when the war which (with one brief break) had been raging for ten years was not half over. No definite knowledge of what was doing in England could, therefore, arrive in France till after the delusive peace of 1814. Definite knowledge then reached Paris in two ways—Englishmen carried it, and Frenchmen fetched it. The missionaries were members of the British and Foreign School Society: the inquirers were members of the Société d'Encouragement pour l'Industrie Nationale. The existence of the British and Foreign School Society can be traced back to January, 1808, tho the name was not adopted till May, 1814. The report presented to the subscribers on June 3, 1815, stated that the propriety of the second

[1] It is curious that there had been monitorial schools and infant schools in France before there were any in England, but that both the monitorial schools and the infant schools which grew so well in France sprang from English seeds.

adjective had been fully justified by the events of the past year. The Rev. Dr. Schwabe, minister of the German Chapel in Goodman's Fields, had been appointed foreign secretary, and in a visit to his native land he had found frequent opportunities of spreading a knowledge of the institution. Francis Horner, one of the vice-presidents; Leonard Horner, John Murray, of Edinburgh, and Rae Wilson, of Glasgow, had visited France and "put the reports and other publications of the society in the hands of benevolent and influential persons." Benjamin Shaw, a member of the committee, who had resided in Paris for several months, had been in communication with the leading philanthropists of the capital, and Knight Spencer had brought the system under the notice of three members of the royal family—the Duke and Duchess of Angoulême and the Duc de Berri.

The Society for the Encouragement of National Industry had been in existence since 1820. Its founders were eminent men. Some of them had sympathized fully in the hopes of reform that animated the States General. Nearly all of them had been forced to seek safety abroad during the days of bloodshed and terror which followed, and the dictum of Horace could be applied to them with a difference—*Cœlum et animum mutant qui trans mare currunt.* Unlike the Bourbons, they returned to France, having learned much and forgotten much.

The Society, in the words of the Comte de Laborde, "employed its funds . . . for the encouragement of the mechanical arts and new inventions," but as the training of the child was the most promising method for promoting the industry of the adult, the opening of schools became an object of desire. Schools, however, could not be opened, and when opened, could not be carried on, without large contributions from the state or the benevolent public. The state had to spend so much money on war that there was nothing left for education, and benevolence at best is local and spasmodic. Still, something could be done if a plan for reducing the cost of maintenance were devised, and the Society learned with much interest that such a plan was being tried with success in the British Islands. While the war lasted details could not be obtained,

but when the treaty of 1814 made personal intercourse possible the Society deputed four of its members to obtain them.

The deputation consisted of Jean-Baptiste Say, François-Edmé Jomard, the Comte de Laborde, and the Comte de Lasteyrie.

They were present at the half-yearly meeting of the British and Foreign School Society in November, 1814; they visited the Central School, in the Borough Road; the Central School, of the National Society, in Baldwin's Gardens, and other schools in various parts of the country. Say wrote a book—*De l'Angleterre et des Anglais;* Laborde and Lasteyrie wrote books on the system and Jomard wrote a report entitled *Remarks on the schools of Bell and Lancaster, being extracts from the diary of a visit to England in March and April, 1815.* He says that "Mr. Richard Chevenix, a member of the Royal Society of London, furnished with a letter from Mr. Allen, was good enough to accompany him to the school in the borough. . . . It is under the direction of the young Picton,[2] who is from eighteen to twenty years old." He was "surprized to learn that, despite the toleration instituted by Lancaster, several Catholic Christians were prejudiced against his school, and obstinately refused to send their children to it"; and he was much pleased with the inscription displayed in front of the master's desk—"The order of this school is, a place for everything and everything in its place." He did not meet the author of the inscription, as Lancaster was in Ireland. Even tho he had been in England, Jomard would not have met him at the Borough Road, the irreparable rupture with the committee having taken place a year before. Bell he did meet at Baldwin's Gardens.

Say, being more interested in political economy than in schools, barely notices them in his book. He, however, men-

[2] In the first list of the "Family" given in the Minutes (January 29, 1808) John Picton is said to be "now at Bristol." In the list for November 8, 1811, and in subsequent lists, he is described as "Superintendent of the School." "The young Picton" was doubtless his brother Charles, who is stated in the list of April 18, 1812, to be sixteen years old. Thus, at the time of Jomard's visit he would be nineteen. In 1818 he went to America to spread the System.

tions that he has "seen the admirable effects of the new system of education in all the principal towns in England. And here, as in an infinity of other cases, the efforts of English private individuals relieve and cover the faults of the administration. Disasters come from above, like the hail and tempests: benefits come from below, like the friuts of a rich soil, which is never exhausted." He adds that French philanthropy was about to imitate English philanthropy in the establishment of monitorial schools for the poor.

The third member of the deputation, the Comte de Laborde, wrote a book on the monitorial system, entitled, *Plan d'Education pour les Enfans pauvres, d'après les deux méthodes combinées du Docteur Bell et de M. Lancaster"* (London, 1815, 144 p.). It is dedicated to the Duke of Kent, and has a preface narrating some of the personal experiences of the writer. Laborde says that among the many discoveries and inventions which have contributed so mightily to the wealth and well-being of England there is one, simple, modest, and obscure, which aims not at beautifying the mansions of the rich, which adds not to the power of the nation, but which will console the poor under his humble roof, teach him to love life, and raise the whole race of misfortune to the level of the other classes of society—if not in worldly possessions, at any rate in sentiments and useful knowledge. This invention is a mode of education so prompt, so easy, so cheap, that it can be adopted everywhere without help from rates or taxes. The secret of its ingenious mechanism consists in the instruction of the children by themselves.

The first monitorial school which the Comte saw was at Farnham, the next at Winchester. He reached the Winchester School at half-past one, and found the boys in the playground. "I took care," he says, "not to inquire for the master, as he would have picked out the cleverest pupils, and probably done most of the talking himself; but I asked the nearest group of children to show me how they did their lessons. Dropping their toys and taking up their books, which have become to them as toys, they formed a circle. The eldest, who assumed the office of instructor, placed me beside him, and gave me a

summary of the Bible, that I might examine on it. Finding that my questions were too easy for the honor of the class, the little preceptor begged me to allow him to examine. Then began with extraordinary volubility a crowd of questions, followed with almost equal volubility by a crowd of answers. One pupil was required to spell a word of five syllables without repeating any of them; another to recite the Ten Commandments in inverse order; an infant of six, overcome by the orthography of Nebuchadnezzar, was 'taken down'; another pupil gave a list of the parables of the New Testament, arranged chronologically; and another worked a rule-of-three sum of which a city clerk would not have been ashamed."

Having seen other country schools, Laborde returned to London, where he continued his researches, visiting the chief establishments of both the societies. On November 24, 1814, he attended a general meeting of the British and Foreign School Society in the Freemasons' Tavern. He says: "In a beautiful hall were assembled nearly a thousand subscribers, among whom one distinguished London's most important people. A son of the king, the Duke of Kent, presided with wisdom, discretion, and eloquence very extraordinary in a person of his rank. He delivered a noble speech on the advantages and the progress of the institution, after which the secretary, Mr. Fox, read a report of the year's operations. This dealt particularly with the schools (accommodating more than 80,000 children) which had been started in various places on the plan of the school in the Borough Road. Moved by the recital and by the sight of so many educated, generous, and independent men, brought together by the love of good alone, I ventured to speak, in order to bear witness how desirable it appeared to me that the institution should be known and adopted beyond the limits of England, and that a sum should be voted to opening correspondence with foreign lands. This idea was supported by his Royal Highness, who very kindly excused me for not having expressed it better in a language which was strange to me. Mr. Whitbread developed it with his usual talent, and spoke of the pleasure with which he saw among them, inspired by a common desire, inhabitants of countries

too long separated by war, and now united by peace for the welfare of humanity. The speech was received with loud applause, the suggestion was unanimously adopted, and the meeting ended with thanks to the Duke of Kent for his zeal in the discharge of his generous functions.

"May I be allowed to interrupt this narrative to pay a tribute of homage to this enlightened prince who, after having served with distinction in both hemispheres, has returned to his native land to encourage every useful enterprise? It is to his perseverance and protection that the institution which I am going to describe chiefly owes its progress, and there are few charitable societies which he does not support by his example, his fortune, and his intelligence. Bearing always in mind the virtues of his august father (the thought of whom often brings tears to his eyes) he believes that he can not better honor the last years of this worthy sovereign than by realizing his most ardent wish—'I hope to see the day when every poor child in my dominions shall be able to read the Bible.' Yes! doubtless the venerable monarch will see this much-desired day, and, thanks to the piety of his son, he will leave this final blessing to his subjects, before sleeping with his fathers, after a life full of days and a reign full of glory."

The fourth member of the deputation, the Comte de Lasteyrie, also wrote a book—*Nouveau système d'éducation pour les écoles primaires, adopté dans les quatre parties du monde: exposé de ce système; de ses avantages et de l'importance de l'établir en France* (8vo, 5 p., Paris, 1815).

This work differs from the Comte de Laborde's in two respects: The description of the "principles and mechanism of the new system" is limited to one chapter, and nothing is said of the writer's personal experiences in England. Lasteyrie avoids controversial questions as far as possible, and when he is compelled to mention any he is careful to preserve a judicial attitude. He can not, however, conceal his preference for the broad basis of the "British" school, and his disapproval of the "spirit of religious intolerance which rages more blindly among the Anglican sectaries than anywhere else." The indirect opposition which these had excited against Lancaster, far

from injuring his wise and liberal doctrines, had conduced to their triumph. Even his own imprudent (*peu mesurée*) conduct, the intoxication of success, and his ingratitude to friends and protectors had not served to kill the zeal of the partizans of his system.

The deputation having returned to Paris, the Society which had commissioned them met on March 1, 1815, and resolved to form an independent association, whose functions should be the collection and dissemination of the information necessary to procure for the lower classes the intellectual and moral education best suited to their needs. To make the preliminary arrangements a committee was appointed which, on March 29, presented an eloquent report (written by the Baron de Gérando) in favor of the new schools.

Napoleon (who had landed in France on the very day which saw the birth of the new body) had now reached the capital, but the change of government was far from impeding the movement. Carnot (the "organizer of victory" under the Revolution), who had been appointed Minister of the Interior, was in complete sympathy with its aim, and on April 10 he communicated Gérando's report to a Conseil d'Industrie et de Bienfaisance, which he had created. On the 27th he presented a long memorial to the Emperor.

He begins by citing the example of the United States "more recently, but perhaps already better, civilized than most of the nations of the Old World." When its people "determine the situation of a city or even of a hamlet, their first care is to send to the spot, along with the instruments of agriculture, a teacher . . . being sensible that to cultivate the mind is as closely connected with the real necessities of man as to clear the ground."

The problem crying for solution in France was how to increase at once the knowledge and the morality of the less fortunate classes. There were two million children requiring primary education, but many received very little, and many none whatever.

"In all parts of the political economy the great art is to do much with slender means. This is the principle which has

guided many of those philanthropists whom we regard as the founders and directors of primary education. They have tried to teach the largest number of children with the least expense, and with the smallest number of masters. . . Their method is to make the children instruct one another . . . by the rapid communication and almost electrical transmission of commands proceeding from one master, who is thus multiplied . . . so that he is able to take charge of a thousand children, whereas the master of a common school is scarcely able to take charge of forty."

"The simplification in regard to masters" led to "saving in expenses," which was further promoted by various devices. Thus "the use of books for scholars is dispensed with, and there is scarcely any consumption of paper and pens,—a simple slate being generally sufficient for all the pupil's operations in writing and arithmetic."

"Wishing to pay a mark of sincere respect to those virtuous men, who, by their labors and achievements, have most nearly solved the problem, I will not let national prejudice dissuade me from placing at the head of the list the names of illustrious foreigners. Dr. Bell and Mr. Lancaster are not natives of our country, but the friends of reason and humanity are all of one country. The two respectable individuals named have put in practise nearly the same system of primary education, and we owe to them its propagation to even the most distant parts of the other hemisphere."

Frenchmen were not forgotten. Several of the members of the new society are commended, and the services rendered by Herbault and the Chevalier Paulet are specially mentioned.

Along with Carnot's memorial appeared in the *Moniteur* an imperial decree ordaining that

(1) "Our Minister of the Interior shall call to his assistance persons who merit to be consulted on the best methods of primary education: he shall examine those methods, and direct a trial to be made of such as he shall judge most suitable.

(2) "An experimental primary school shall be opened in Paris, organized in such a manner that it shall serve as

a model to other schools, and develop into a normal school for teachers.

(3) "After satisfactory results have been obtained from this experimental school our Minister of the Interior shall propose to us measures whereby all the departments may speedily enjoy the benefits of the plans which have been adopted."

The committee appointed by Carnot, in accordance with the first clause of the decree, consisted of Gérando, Laborde, Lasteyrie, Jomard, and the Abbé Gaultier.[3] They were appointed on April 27. On May 16, meeting in Carnot's house, and under his presidency, they resolved to start a school in Paris "upon the principles of the new plan of education by Mr. Lancaster," to begin in temporary premises with twenty children, who should learn the "mechanism" of the plan, so as to be ready to act as monitors when the permanent school was open. These resolutions would have been vain if the need of masters had not been anticipated by the foresight and philanthropy of the British and Foreign School Society. Soon after the peace of 1814 the secretary had invited the faculty of Protestant theology at Montaubon to send over some young men to study the system. In September (1814) they sent the Rev. Francis Martin, of Bordeaux, and two months later, Frossard and Bellot.

On May 8, 1815, Lasteyrie wrote to the secretary of the British and Foreign Society, asking him to inform Martin "that I am authorized by the Minister of the Interior to make known to him that he may return immediately to Paris, and

[3] The Abbé Gaultier (1746-1818) devoted his life almost entirely to the cause of education. He anticipated Froebel in his idea of instruction thru games. In 1786 he began to put the idea into practise in classes attended by children of the first families of Paris. In 1791 the result of his reflection and experience was embodied in *Le jeu raisonnable et moral pour les enfants.* The same year Revolutionary violence drove him to England, where he found some of his old pupils and continued his classes, his method receiving the approbation of the Universities of Oxford and Cambridge. He returned to France in 1801, and in the course of the next dozen years he developed his plan and published a series of works expounding and applying it. After the peace he visited England to study the monitorial system.

that we request him to assist us in organizing and instructing the children of our school according to the system of Mr. Lancaster. If Mr. Martin is not already gone, I request you from the Minister of the Interior to inform him that he may come as soon as he can, and the sooner the better. I do not expect that he will experience any difficulty in entering France, even if war should be declared; in that event he may write to the Minister of the Interior, who will remove all difficulties."

Martin must have started before the letter was written, as he was present at the meeting in Carnot's house on May 16, when he was appointed director, at a salary of 300 francs a month. One of the "public buildings" was assigned for a schoolroom, but, being filled with warlike stores, it was not available, and an "apartment" in the Rue Saint-Jean-de-Beauvais had to be used. There "on the 13th of June at three o'clock in the afternoon" was opened the first of the *écoles à la Lancaster*. Among the visitors who flocked to see the new system in operation was the Duchesse de Duras.[4] Convinced of its utility she resolved to establish a school at her own charge.

On June 17 was held the first general meeting of the new society started by the Society for the Encouragement of National Industry. The hostile armies were already preparing for the death-grapple of Waterloo, and news of the battle was brought to Carnot while he was presiding over a meeting of his committee. Without betraying by look or word the momentous news that he had heard, he went on with the business as if nothing had happened.

The new society followed his example, tho the voices of the speakers at its meetings were sometimes drowned by the thunder of the guns of the allied armies, and tho General Muffling's horses were tethered to the hooks fixed in the walls of the first school for suspending the reading sheets. It called itself the Société pour l'Instruction élémentaire, and adopted an elabo-

[4] This lady (1778-1828) daughter of the Admiral Count de Kersaint, a prominent promoter of popular education, earned a great literary reputation by her two novels *Ourika* and *Edouard* printed first for circulation in the Court, but afterwards published for the benefit of the poor.

rate constitution, consisting of forty-seven "articles," arranged under four "titles." Title I, Article 3, evidently copied from the corresponding rule of the British and Foreign School Society, ordained that "all possible care shall be taken that the first principles of morality and religion shall be inculcated, the developments of which shall be reserved for the ministers of worship." [5]

The original officers were:—Gérando, president; Lasteyrie and Say, vice-presidents; Laborde, general secretary; Henri Duval and Dr. de Montègre, secretaries; Bosc and Huzard, censors,[6] and Mesnier, treasurer. The ordinary members included Ampère (the famous electrician), the Duc de Broglie, Choron (director of the opera, and founder of the "Conservatory" of Classical Music), the Abbé Gaultier, the Duc de Larochefoucault-Liancourt, Moreau de Saint-Méry, and the Baron Maurice.

Title I, Article 7, provided for the election as "associated members" of "foreign savants distinguished by writings or other noble works having education as their object." Under it Dr. de Montègre proposed on July 4, 1815, the appointment of "MM. Pestalozzi (of Yverdun) and Fellenberg (of Hofwyl)." Laborde proposed "the inventors of the most perfect methods of instruction," Lancaster and Bell, and the "promoters and patrons of the schools in which these methods are applied," the Duke of Kent, the Duke of Sussex, the Duke of Bedford, William Allen, Joseph Fox, and Samuel Whitbread. Gérando "solicited the same distinction" for MM. Schaw,[7]

[5] *Culte*—The frequent translations of French documents which occur in the Reports of the British and Foreign School Society for 1814 and 1817 are made by some one who did not know either French or English thoroly—probably by Dr. Schwabe.

[6] By Title III, Article 3, of the Constitution, the duty of the Censors was to "watch over the execution of the rules, and to see that no deviation from them took place."

[7] "M. Schaw" is Benjamin Shaw, described by Lasteyrie as "a distinguished member of the English Society, who, animated by a zealous and enlightened philanthropy, came as soon as circumstances allowed to France, in order to labor for the spread of the new System, and by his experience and advice to aid those who wished to organize it in France."

"M. Henri Bennett," given elsewhere as Sir Henry Bennett, is described as "one of the most distinguished members of the House of Commons,

Campe, Gutsmuts, Niemeyer, Henri Bennett, Schwabe, and the Baron de Voght; and Jomard for "Sir Joseph Banks (president) and M. Richard Chevenix (member of the Royal Society, London)."

In 1818 the British and Foreign School Society reciprocated by passing a resolution "That this meeting having heard with great delight of the philanthropic and liberal zeal with which many individuals of different ranks of society in foreign countries have promoted the universal education of the poor upon the British system; and that in testimony of the high respect and satisfaction which this meeting entertain for their exertions in this great cause, the following distinguished personages and gentlemen be appointed honorary members of this Society." The members of the Societé pour l'Instruction élémentaire included in the list were Larochefoucault-Liancourt, Lasteyrie, Gaultier, Jomard, Montègre, and Cuvier.

On August 9 Martin presented to the Society for Elementary Instruction a report on the progress of his temporary school. "This school," he says, "was designed to form monitors for the great elementary school to be opened in the church of the ancient College of Lisieux. M. the Prefect of the Seine appointed twenty children from the primary schools of the twelve districts of Paris to be the first pupils. . . . Eight only appeared to answer the invitation made to them, and only two or three of these were fit for the trust which we wished to repose in them. Some friends . . . afterwards sent some other pupils," raising the number to sixteen. Martin gives a minute account of their progress in reading, writing, and arithmetic, and adds that "all can execute with equal correctness and expedition all the movements which form the mechanical part of the new system of education, so that all

and one of the most zealous members of the British and Foreign School Society. During a journey to France last Winter he gave us precious information respecting the new schools established in England." I can not find a Sir Henry Bennett in any of the publications of the period. The person meant is probably the Hon. Henry G. Bennett, son of the Earl of Tankerville. He was a prominent member of the House of Commons. His name first occurs in the Reports of the British and Foreign School Society in 1817, when he is described as a life governor.

"M. Schwabe" was the Rev. Dr. Schwabe.

who have visited them always give them the most flattering proofs of their satisfaction." The report ends with an account of the steps which have been taken to prepare the necessary books and lessons.

The majority of the committee appear to have considered that the rule respecting the teaching of the principles of morality and religion involved the reading of the Bible, but for some reason (probably the vigor of the minority) the resolution past on the subject was not communicated to Martin. On August 24 (the anniversary of the massacre of St. Bartholomew) Gérando wrote to him expressing surprize.

The Baron proceeded:—" The committee renewed this resolution at its last sitting. A sincere Christian myself, I confess to you that I consider the perfecting of the common schools as a means of restoring religious sentiments, and this motive attaches me the more to your noble labors, as I should probably not have concurred in them had they received another direction. I know that it is the spirit which animates you also, and it directs you more than anything besides to the most exalted end and the most noble recompense. I enter then into your intentions and entreat you earnestly not to delay any longer in putting the Bible of Royaumont[8] into the hands of your scholars."

Altho monitorial schools had been warmly promoted by an Imperial Minister, the Restoration Government did not at once manifest any hostility to them. Indeed, the Prefect of the Seine, the Comte Chabrol de Volvic, showed himself as earnest on their behalf as Carnot himself had been. On November 3 he promulgated an ordinance which stated that, " having seen the regulations of the Society which has just been formed in Paris for the propagation of the new method of elementary instruction, and wishing to favor an institution which tends to ameliorate the condition of the poor, and which must have the happiest influence on their manners and public order " he decrees the establishing for the prefecture of a Board of Primary

[8] The collection of Bible pictures with explanations, published in 1694, under the pseudonym Royaumont, prior of Sombreval, is generally attributed to Nicolas Fontaine.

Instruction, consisting of eight members, to meet once a fortnight, to prepare the machinery for introducing the new system, and to take over Martin's school.

The members of the board were the Duc de Larochefoucault-Doudeauville,[9] the Baron de Gérando, the Comte de Laborde, the Comte de Lasteyrie, Benjamin Delessert,[10] the Comte de la Bonardière, Jomard, and the Abbé Gaultier.

Martin's school had been transferred on September 1 from its private house in the Rue de Saint-Jean-de-Beauvais to the "ancient Collège de Lisieux," in the same street. The building assigned to it was a chapel so lofty that it was made by division into two stories, to accommodate both the boys and the girls. In the impoverished state of the country there were no public funds available for the alterations and repairs, but the British and Foreign School Society voted a hundred pounds towards the cost, and the Duchesse de Duras, begging for the good cause at Court, obtained six hundred francs from the King, the Duc de Berri, and others.

By the end of the year 1815 Paris had five monitorial schools:—

(1) One (Martin's) belonging to the Prefecture of the Seine.

(2) One under Frossard, in the Rue Popincourt, belonging to the Society for Elementary Instruction.

(3) One belonging to the Lutheran Community, in the Rue des Billettes.

(4) One belonging to the Administration des Hospices; and

[9] Ambroise-Polycarpe, Duc de Larochefoucault-Doudeauville (1765-1841), like the head of another branch of the same family, the Duc de Larochefoucault-Liancourt, was a member of the Society for Elementary Instruction, and of many other philanthropic institutions.

[10] It was for Delessert that Rousseau wrote his letters on Botany. Before the Revolution he visited England and made the acquaintance of Dugald Stewart, Adam Smith, James Watt, and other leaders of thought. For showing his country how to produce beetroot sugar on a large scale, Napoleon made him a Baron of the Empire. He was one of the founders of the Society for the Encouragement of National Industry. For nearly half a century he was a member of the Council of the Hospices of Paris; he was an ardent propagator of monitorial and infant schools and of savings banks.

(5) One under Bellot, belonging to the Duchesse de Duras.

Before the end of the next year there were fifteen hundred monitorial schools in Paris and the provinces, established, some by the society, some by zealous officials, and some by charitable institutions, or enlightened philanthropists. The spread of the system had doubtless been aided by the royal decree of February 29, 1816, which gave an annual grant of 50,000 francs to the society, and appointed for every canton a Primary Education Committee. The measure was exceedingly defective because it provided no method for compelling the committees to act, and no money for them if they desired to act. Still it produced some effect, as it suggested the opening of schools just at the time when cheap schools had been rendered possible.

The Restoration Government had thus far not shown any hostility to the new movement, but reactionaries, more royalist than the King, more orthodox than the Pope, were daily growing bolder. Unless they were opposed (as many of them were) to any system of education for the poor, there was nothing in the monitorial system to excite their opposition. It was only a method of organization and instruction, and it might be employed with the same facility in a Catholic school as in any other. But it was suspect in its origin and in the horrible liberality of the Society which had done most to promote it. Ecclesiastical influence was, therefore, brought to bear—not in vain. The preamble of a decree published on April 4, 1816, states that the Grand Almoner had "represented to the King the alarms of the Catholics and the petitions of MM. les curés," and his Majesty "without offering any opinion respecting the merits of the new method" ordered that in all schools already established, or to be established, the Roman faith should alone be taught, that masters who did not profess that faith should be excluded, that the rules should be approved by the bishops, that the curés should see to their observance, and that where the Christian Brothers had opened a school a monitorial school should not be opened.

In obedience to this decree, Martin, Frossard, and Bellot

were dismissed. Their dismissal might have cooled the fury of the fanatics if the grant of 50,000 francs had been withdrawn, but an incomplete triumph left them more angry than complete failure would have done. Their attacks became so venomous that the Government published in the *Moniteur* for August 4, 1816, a proclamation to reassure *les personnes raisonnables et les bons esprits.* There must have been few, for there was no abatement in the strength or malignity of the attacks. The schools could no longer be described as Protestant or infidel; hence they were described as foreign. Their defenders proved that monitors had been employed in France itself before Lancaster was born; they avoided the term *monitorial* (using *mutual* instead); but their opponents in order to give the schools that bad name which is proverbially equivalent to hanging, persisted in calling them "écoles à la Lancaster." No charge was too mean or too monstrous to be believed. When Wilhelm's method[11] of teaching singing was introduced into the schools, the Society was said to be desirous only of forming cantatrices and choruses for the opera, and when gymnastics were introduced the Society was accused of wanting to train circus performers and burglars.

At last the attacks were concentrated on the grant to the Society for Elementary Instruction. On June 21, 1821, Cornet d'Incourt proposed in the Chamber of Deputies that it be withdrawn. "Show me," he declaimed, "a single enemy of religion or of the monarchy who is not at the same time a rabid supporter of the monitorial system, and I will cease to oppose the grant." The Duc de Larochefoucault-Liancourt, as president of the Society, replied, "This method is said to be of English origin, and (can it be believed?) that origin is to certain minds a crime, an unpardonable crime. I could, not without justification, claim for my own country the honor of the invention, but what is the use of such a childish dispute? No one will deny to France the faculty of invention, but she has a higher glory, that of believing she honors herself by taking advantage of every invention—come whence it may—which is productive of happiness to man."

[11] The method introduced into England by Hullah.

The motion was lost, and next year Laborde, thinking that attack might be the best defense, proposed to double the grant. Royer Collard, president of the Council of Public Instruction, said, in supporting, that there were people, otherwise respectable, who believed ignorance to be good, because it disposed the lower classes to submission, made them easier to govern, and was, in a word, a principle of order. It was a principle of order which had sufficient supporters in the Chamber to prevent the carrying of Laborde's proposition.

The discussion was the ostensible cause of the publishing by Dubois-Bergeron, "member of several charitable societies and committees," of a pamphlet of 242 pages, entitled *La vérité sur l'enseignement mutuel consideré dans sa nature, son origine, et ses effets, faisant suite aux débats qui ont eu lieu à la dernière session des Chambres sur ce nouveau mode d'enseignement—dédié aux amis de l'Autel et du Trône, des Mœurs et de l'Enfance.*

I will not even name the other French Trimmers, Marshes, Lloyds, and Southeys, and one taste of Dubois-Bergeron's quality will suffice. He says that the improvement in education which took place after the Restoration was the infallible result of the reërection of the episcopal sees. The pious solicitude of the most Christian King was about to fulfil every desire and provide every need when the demon of liberalism saw that childhood was about to have the good fortune of being saved from its contagion, and becoming the hope of a desolated church and country. The genius of evil then conceived the project of establishing the new schools to corrupt the rising generation at the source, and there appeared a method of instruction hitherto unknown amongst them, foreign to their manners and habits, and taught by Methodists and Quakers.

Tho the attempt to stop the grant failed, the attack was on the whole successful, and there followed a *morte saison.* Of the fifteen hundred monitorial schools opened after the decree of 1816, only six hundred remained in 1828. It needed the advent of the Martignac Ministry and the Revolution of 1830 to give education a chance.

In 1831 the Society for Elementary Instruction was "recognized as an *établissement d'utilité publique*." D'Argout's report to the King, in consequence of which the recognition was granted, states that the Society had been in existence for sixteen years. To it was due the establishment of monitorial schools in France; to it was due their maintenance when they were thru sinister influences, in a manner, proscribed. The mode of instruction which it introduced was more economical and more complete than any employed before, and lessened the chief difficulty in the way of schools for the poor. The Society then maintained three schools in Paris; it provided masters for the schools in the Departments, and supplied school requisites; it examined every new method of teaching proposed, and recommended every method found to be useful.

The Society is still in existence, tho the monitorial system is as dead as Dives. The number of schools which it opened directly was never very great, but as in England, the establishment of Lancasterian schools was an incentive to the establishment of "National" schools, so in France the establishment of the schools of the Society was an incentive to the establishment of cantonal schools. Before the decree of 1816 the number of children receiving instruction was only 165,000; in 1820 it was 1,123,000, and even during the *morte saison* it never fell below a million. This is a result of which the Society for Elementary Instruction may well be proud, and for which the British and Foreign School Society, so ready to aid and encourage, may well take some small credit.

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IV

ELIMINATION AND REPETITION

FACTS VERSUS THEORY

For a decade, the question of waste in public schools has been under discussion, and school men are coming to realize that the problem of how to save waste is the most pressing question of school administration.

Tho many have contributed to bring the problem of school losses to the front, the most notable contributions are those of Professor Edward L. Thorndike of Teachers College, Columbia University, and of Mr. Leonard P. Ayers of the Russell Sage Foundation. The value of the work of these two men in directing attention to waste in education is inestimable. When it comes, however, to estimating the worth of their conclusions with reference to the number eliminated and with reference to the number of repeaters in a given system, and to estimating the validity of the methods employed in determining elimination and repetition, it is a different matter. For the conclusions of both Professor Thorndike and of Mr. Ayers rest upon the respective methods employed, and the validity of their methods can be determined only as the facts with reference to elimination and repetition in given systems become known, and their methods tested in light of known facts.

Both Dr. Thorndike and Mr. Ayers estimate the per cent. of retention or of elimination in any given system thru using the number of probable beginners as the bases of determining the number that should be in any given later grade and thru finding what per cent. the membership of a given grade is of the number of probable beginners. To find the probable number of beginners in any system, Dr. Thorndike takes the average of the membership of the first three grades. To

be sure, he assumes to employ an elaborate system of correctives, yet the above is the essence of his method. On the other hand, Mr. Ayers finds the number of probable beginners in a given system by taking the "average of the generations of the ages seven to twelve in the school membership of the system."

If determined by Dr. Thorndike's method, the number of beginners in the elementary schools of Cleveland for 1908-09 would be 9,848; and if estimated by Mr. Ayers's method, it would be 6,608; whereas, in fact, the number of beginners was 8,504. In this particular case it appears that Dr. Thorndike's method gives 1,344, or 15.8 per cent. too many, while Mr. Ayers's yields 1,896, or 22.3 per cent. too few beginners.

When the per cent. of retention in the eighth grade is determined, in the case of Cleveland for 1908-09, in view of Dr. Thorndike's method, it is 37.6 per cent., while Mr. Ayers's method gives the per cent. remaining as 56; whereas, taking the actual number of beginners, gives 43.5 per cent. continuing to the eighth grade, or the use of the actual number of beginners as the basis of determining the degree of retention would indicate 5.9 per cent. greater holding power than the use of Dr. Thorndike's method, and 12.5 per cent. less than Mr. Ayers's method,—difference in holding power not insignificant in judging of the efficiency of a school system.

In view of the wide divergence of these two methods in fixing upon the probable number of beginners and in view of certain fallacies that might be cited against using this number as the basis of estimating the percentage of retention, it is probable that little reliance can be placed upon either Dr. Thorndike's or Mr. Ayers's method as a means of determining the amount of elimination in a given system of schools.

In addition to applying his method of finding the number of probable beginners to determining elimination, Mr. Ayers applies it to fixing upon the number of repeaters in a given elementary system. According to Mr. Ayers's method, there would have been in the elementary schools of Cleveland, for 1908-09, in the first grade 5,260 repeaters, in the second 2,216, in the

third 2,243, in the fourth 1,517, in the fifth 823, and none in the sixth, seventh, and eighth grades, or a total of 12,059. Whereas, in reality there were in the first grade 3,364 repeaters, in the second 1,274, in the third 1,235, in the fourth 1,086, in the fifth 797, in the sixth 474, in the seventh 320, and in the eighth 103, or a total of 8,655. That is, Mr. Ayers's method gives Cleveland, for 1908-09, 20.2 per cent. repeaters on total registration, while, in fact, but 14.5 per cent. were doing their work the second time. It appears, therefore, that Mr. Ayers's method yields in this particular case 3,404, or 39.3 per cent., too many repeaters.

Judged by this single case, it would seem that Mr. Ayers's method of determining the number of repeaters gives too high a percentage. Since, however, it is easy to ascertain the exact number, school authorities ought not to be long in doubt as to the percentage of repetition in their respective systems, and it ought not to be long before there would be no need of a theoretical method of determination.

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V

RETARDATION OF ELEMENTARY SCHOOL PUPILS

A STUDY OF SIX SCHOOLS IN NEW YORK CITY

The present report concerns the retardation of elementary school pupils only, in one school district of New York City. A method of investigation was used which enables one to measure the incidence of retardation, so as to estimate with some exactitude the amount of it in each grade. The cases studied are confined to pupils who began school in the kindergarten or first grade of the school in which they now are.

The district selected is a suburban one. The six schools studied range in registry numbers from 400 to 1,500 pupils approximately. Such selection was made solely on the basis of convenience and of close personal acquaintance with the faculties of said schools.

The migration of pupils

As a preliminary consideration, it is worth while to note the comparison by grades of the net results of the effect of the migratory tendency plus the tendency to enter the grades beyond the first, as shown in Table I.

A rather poor statistical measure, yet interesting in this case, is the range in per cent. of the effect of the migratory tendency in the various sections of a school district. It is seen in this table to be from 22 per cent. to 62 per cent.: *i.e.*, whereas in School F the pupils who are now in the grammar grades and who entered the kindergarten or the 1A grade represent about one-fifth of the present total register in these grades; in School A there are, subject to the same conditioning factor, more than three times as many. The 78 per cent. in the one case or the 38 per cent. in the other would represent the migration from other schools plus the number of those who were ad-

TABLE I

PER CENTS. OF INITIAL STARTERS[1]

Schools	A	B	C	D	E	F	Ave.
Grades	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
8B	60	26	60	44	45	27	43.7
8A	57	34	45	30	50	6	37.0
7B	62	32	46	38	36	17	38.5
7A	56	17	29	31	42	17	32.0
6B	64	44	43	19	58	40	44.7
6A	51	46	71	25	43	11	41.2
5B	59	53	71	24	49	17	45.5
5A	72	58	48	66	51	17	52.0
4B	81	100	56	45	46	40	61.3
4A	58	91	60	50	63	26	58.0
Ave.	62	50	53	37	48	22	45.3

mitted as absolutely new pupils in or beyond the second grade. As a matter of fact, the number of such absolutely new admissions is unquestionably so small that it is scarcely worth considering. Taken generally, the net results obtained by subtracting the per cents. given from 100 per cent. show quite accurately the migratory tendency prevalent in the district studied.

[1] The quotients obtained by dividing the numbers of pupils in each grade, who entered the school in which they are at present enrolled in either the 1A grade or in the Kindergarten, by the present total register of the grade in which they now are, are changed to per cents.

Considering the 7A grades in aggregate, one notes that the minimum of 32 per cent., and in all the 4B grades the maximum of 61.3 per cent., show similarly the wide range in grade distribution of those who originally entered the lowest grade of school. Or more generally, in grades 6A and up thru 8B, on the average 60 per cent. of the registered pupils have been received mostly by transfer from other schools to, or have been admitted as new pupils in grades beyond, the 1A grade. On the other hand, in grades 5B and down thru 4A there is a decrease of 25 per cent. on that rate, showing 45 per cent. as not having entered the initial grade of the school which they now attend.

TABLE II

THE SIX SCHOOLS. AGE DISTRIBUTION AGGREGATE, 1,312 CASES

GRADE	7 or less	8	9	10	11	12	13	14	15	16	17 or more	Total	Above Normal Age	
													No.	per cent.
8B							28	27	19	7	2	83	55	66.3
8A						2	13	24	23	3		65	50	76.9
7B					1	14	33	30	10	8		96	81	84.4
7A				1	4	18	33	18	15	4	2	95	72	75.8
6B					20	40	39	29	7	3		138	118	85.5
6A				2	45	41	30	17	9	1		145	98	67.6
5B			1	24	50	47	23	13	6			164	139	84.8
5A			1	42	48	36	13	7	4	1		152	109	71.7
4B			26	61	47	34	13	7	2			190	164	86.3
4A	1	16	48	55	35	13	11	5				184	119	64.7
										Total		1312		

The age grade relations of the 1,312 initial starters

The actual numbers of pupils in the grades of the six schools are shown, segregated according to ages, in Table II. The age of each individual was given in years only and represents the entrance age to the present grade.

In the last column of Table II the numbers of retarded pupils are changed to per cents. Table III shows a comparison of retardation per cents. in the schools studied, with approximate modes by grades, deviations from these modes, and average deviations.

TABLE III

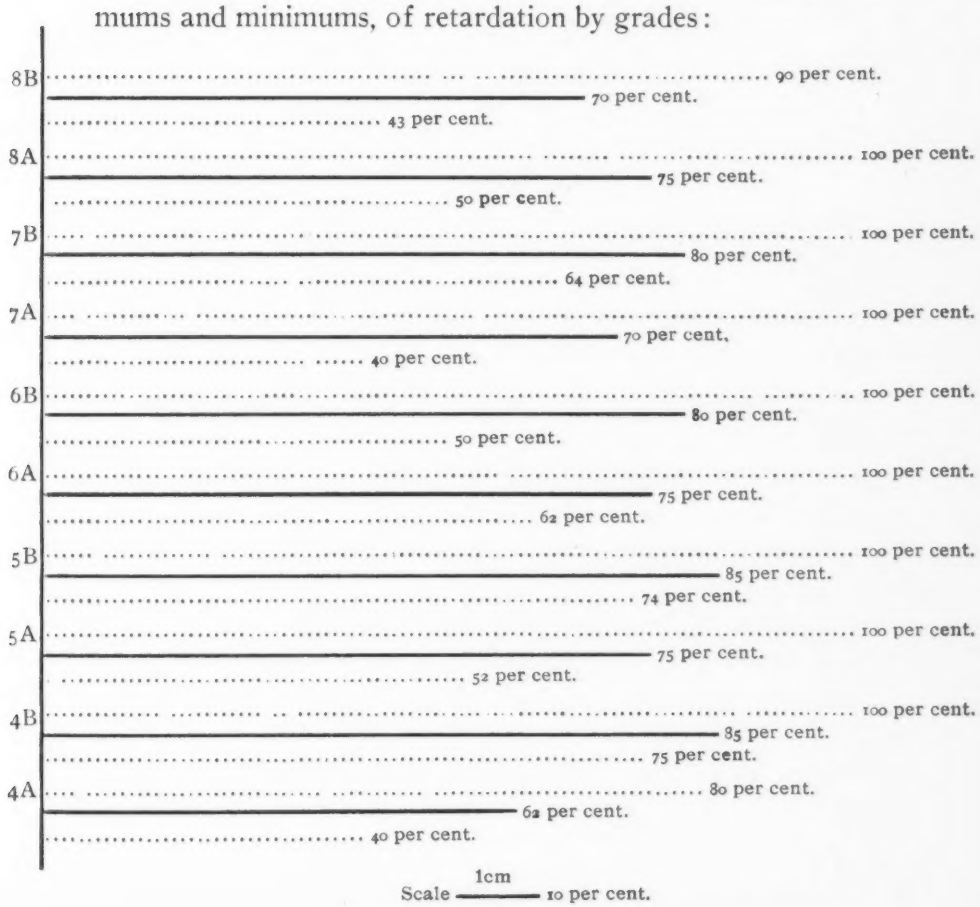
RETARDATION IN PER CENTS. BASED ON ENTRANCE AGE TO PRESENT GRADE

Schools	A	B	C	D	E	F	Approx. Mode	Deviations From Mode						Aver. Dev.
								A	B	C	D	E	F	
Grades	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
8B	73	88	43	73	90	50	70	+3	+18	−27	+3	+20	−20	15.2
8A	71	98	77	50	73	100	75	+4	+23	+2	−25	−2	+25	13.5
7B	92	96	74	64	100	67	80	+12	+16	−6	−16	+20	−13	13.8
7A	77	67	80	100	69	40	70	+7	−3	+10	+30	−1	−30	13.5
6B	86	97	81	100	78	50	80	+6	+17	+1	+20	−2	−30	12.7
6A	66	68	62	75	74	100	75	−9	−7	−13	0	−1	+25	9.2
5B	93	88	74	88	83	100	85	+8	+3	−11	+3	−2	+15	7.0
5A	67	89	52	79	75	100	75	−8	+14	−23	+4	0	+25	12.3
4B	90	83	76	100	95	75	85	+5	−2	−9	+15	+10	−10	8.5
4A	66	80	54	45	70	40	60	+6	+20	−6	−15	+10	−20	12.8

Assuming 9 years to 9 years 11 months inclusive as the entrance age in grade 4A, had no pupils been delayed in entering school or held back thereafter in the six schools considered, in general it may be said that 70 per cent., with an average deviation of 15.2 per cent., of those in 8B who entered their respective schools in the first grade, are "over-age"; 75 per cent. A. D. 13.5 in 8A; 80 per cent. A. D. 13.8 in 7B, etc.,

to 60 per cent. A. D. 12.8 in 4A. In taking 6 years to 6 years 11 months inclusive as the normal entrance age to grade 1A, 7 years to 7 years 11 months inclusive to grade 2A, 8 years to 8 years 11 months inclusive to grade 3A, 9 years to 9 years 11 months inclusive to grade 4A, etc., the writer is accordingly following the usual custom. In reality, the modal entrance age in the schools of the particular district studied, as shown by Table IV, is almost 7 years, probably 6 years 10 months, or thereabout. Percentages of "over-ageness," as stated in the last column of Table II, are, therefore, too high. Taking 10 years to 10 years 11 months inclusive as the normal age of a pupil entering the fourth grade, these percentages for 8B thru 4A would reduce to 33.7, 40.0, 50.0, 41.1, 56.5, 39.3, 54.3, 40.1, 56.8, and 34.8 respectively.

The accompanying graphic illustration shows modes, maximums and minimums, of retardation by grades:



It has been suggested by several principals that it is unfair to assume that six years is the average entrance age of a pupil admitted to the 1A grade in the schools of this city. Table IV is a simple statement of the ages at entrance to 1A grade of the 1,312 children treated in this report.

TABLE IV

AGE DISTRIBUTION OF 1,312 PUPILS AT TIME OF ENTRANCE TO 1A GRADE

Schools	5 or less	6	7	8 or more	Total	Above Normal Age	
						No.	per cent.
A	46	137	119	71	373	190	50.9
B	31	109	81	58	279	139	46.2
C	34	162	90	34	320	124	38.8
D	11	40	53	13	117	66	56.4
E	17	74	55	41	187	96	51.3
F	10	12	9	5	36	14	38.9
Total	149	534	407	222	1312	629	47.9

Reading from Table IV, one notes that of the 373 initial starters in School A, 46 entered grade 1A at the age of five or less; 137, at the age of six; 119, at seven; and 71, at eight years or more. This means that about one-half of these children were "over-age" at the time of their entrance to the first grade.

For the six schools, about 48 per cent. of the 1,312 pupils treated were over six years of age (*i.e.*, 6 years 0 months to 6 years 11 months inclusive) when they were admitted to grade 1A. The large numbers in the seven-year and eight-year columns are, perhaps, to be accounted for by the fact that prior to October 1, 1909, the compulsory attendance age in the schools of this city ranged from eight to sixteen. At

present the amended Compulsory Education Law says, in part, that, "Every child between seven and sixteen years of age, in proper physical and mental condition to attend school, shall regularly attend upon instruction, during the compulsory school year."

TABLE Va

SIX SCHOOLS. AGGREGATE, 1,312 CASES

Left Back	4A	4B	5A	5B	6A	6B	7A	7B	8A	8B
None	78	68	42	67	45	41	30	40	17	36
One	64	53	54	41	36	40	23	27	23	20
Two	25	35	36	38	42	39	26	24	17	21
Three	9	20	10	15	15	13	8	5	7	2
Four	4	7	6	3	7	5	5	—	1	3
Five or More	4	7	4	—	—	—	3	—	—	1
Total Left Back	106	122	110	97	100	97	65	56	48	47
Total Cases	184	190	152	164	145	138	95	96	65	83

The incidence of retardation

The second part of the study is a measurement of the relative frequency of non-promotion in the different grades. Each pupil was asked to state in what grade or grades he had been kept back for a second term. In the event of the pupil's inability to remember accurately, a note was made of such inability and recourse was had to the record card filed in the office of the principal. Such action was necessary in only

32 out of 1,312 cases, and the writer was particularly fortunate in obtaining full records of same; for it was noted that in the majority of cases the record cards of the upper-grade pupils did not show in full their history since their entrance into grade 1A. The records usually went back only as far as 1904. This explains why it became necessary to visit each and every class in grades 4A thru 8B in the six schools in order to obtain direct from the pupils the information sought.

In the first place, an endeavor was made to ascertain the frequency of non-promotion of those pupils now in the grammar grades, including 4A and 4B.

TABLE Vb

SAME CONVERTED TO PER CENT. EQUIVALENTS

Left Back	4A	4B	5A	5B	6A	6B	7A	7B	8A	8B
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent
None	42	36	28	41	31	30	32	42	26	43
One	35	28	36	25	25	29	24	28	35	24
Two	14	18	24	23	29	28	27	25	26	25
Three	5	11	7	9	10	9	8	5	11	2
Four	2	4	4	2	5	4	5	—	2	4
Five or More	2	4	3	—	—	—	3	—	—	1
Total Left Back	58	65	74	59	69	70	67	58	74	56
Total Cases	100	100	100	100	100	100	100	100	100	100

The figures in Table Va show how many pupils of the initial starters who had reached any given grade from 4A on, in the

six schools, had been "held back" once, twice, three times, etc. Converting these figures to per cents. for purposes of comparison, we have Table Vb.

The opinion has been exprest by many of the teachers and principals questioned at the time of the investigation that the so-called "average" pupil, mentally, does reach the 8B grade, but is left back at least twice during his or her school life. The use of the expression "average" pupil is confusing, to say the least. Whether or not those who enter 1A and pass thru the 8B in the same school are of average ability, the fact is that almost one-half of these pupils are never left back at all; one-fourth, once; one-fourth, twice; 2 per cent., three times; 4 per cent., four times, and 1 per cent., five times or more. The median evidently would be somewhere in the one-time group.

These same data throw some light on the question as to the extent to which each of the sixteen half-year grades acts as a stumbling block for those who survive the entire course; and each of the fifteen for those who reach 8A; and each of the fourteen grades for the 7B pupils, etc., down thru all of the grammar grades, including 4A and 4B.

The facts will be clearer from the two following tables. Table VIa is the statement of the aggregate representing the records of 1,312 cases in the six schools. Table VIb gives the same facts in per cents.

In cases where a boy or girl was left back once in one grade and once in another, records are made in both places, the same as if the records of two pupils, each showing one non-promotion, were given. If a pupil is left back twice in one grade the record counts as a double score in that grade, in the same way as the records of two individuals who are left back in that grade would count. It is for this reason that Tables VIa and VIb do not seem at first glance to tally with Tables Va and Vb. In order to check up Table VIa, turn to Table Va and note the following: *e.g.*, in 8B there are 20 left back once, which means 20 records; 21 left back twice, 42 records; 2 left back three times, or 6 records; 3 left back four times, or 12 records, and 1 left back five times, to count as

5 records. The sum of 20 + 42 + 6 + 12 + 5, or 85 records, is the same as the sum total of non-promotions in grade 8B, as recorded in the next to the last column of Table VIa.

TABLE VIa

GRADE DISTRIBUTION OF NON-PROMOTION IN AGGREGATE

Gr.	8B	8A	7B	7A	6B	6A	5B	5A	4B	4A	3B	3A	2B	2A	1B	1A	Grand Total	
																	No. left back	Total promoted and non-prom.
8B	7	5	8	11	9	7	7	5	3	4	4	5	2	4	2	2	85	121
8A		6	9	14	16	4	6	6	6	5	4	4	—	1	—	1	82	99
7B			18	9	7	12	8	6	4	4	3	6	1	4	2	6	90	130
7A				25	14	15	10	19	12	14	8	6	3	4	3	2	135	165
6B					23	22	27	18	15	16	13	14	9	10	6	4	177	218
6A						24	24	27	19	20	25	14	13	13	3	11	193	238
5B							30	29	20	17	23	17	10	8	8	12	174	241
5A								22	21	31	21	32	29	17	10	19	202	244
4B									26	33	46	33	35	28	22	30	253	321
4A										30	24	37	24	18	13	33	179	257

Reading from Table VIb it is seen, concerning those now in 8B of the initial starters, that 5.8 per cent. represents the amount of non-promotion in grade 8B; 4.1 per cent. in grade 8A; 6.6 per cent. in grade 7B; 9.1 per cent. in grade 7A; 7.4 per cent. in grade 6B, etc., . . . to 1.7 per cent. in grade 1A.

TABLE VIb

Same in Per Cents.

USING TOTAL OF PROMOTED AND NON-PROMOTED AS THE BASE

8B	5.8	4.1	6.6	9.1	7.4	5.8	5.8	4.1	2.5	3.3	3.3	4.1	1.7	3.3	1.7	1.7
8A		6.1	9.1	14.1	16.2	4.0	6.1	6.1	6.1	5.1	4.0	4.0	—	1.0	—	1.0
7B			13.8	6.9	5.4	9.2	6.2	4.6	3.1	3.1	2.3	4.6	0.8	3.1	1.5	4.6
7A				15.2	8.5	9.1	6.1	11.5	7.3	8.5	4.8	3.6	1.8	2.4	1.8	1.2
6B					10.6	10.1	12.4	8.3	6.9	7.3	6.0	6.4	4.1	4.6	2.8	1.8
6A						10.1	10.1	11.3	8.0	8.4	10.5	5.9	5.5	5.5	1.3	4.6
5B							12.4	12.0	8.3	7.1	9.5	7.1	4.1	3.3	3.3	5.0
5A								9.0	8.6	12.7	8.6	13.1	11.9	7.0	4.1	7.8
4B									8.1	10.3	14.3	10.3	10.9	8.7	6.9	9.3
4A										11.7	9.3	14.4	9.3	7.0	5.1	12.8
Aver.[2]	5.8	5.0	10.0	11.5	9.4	8.7	9.2	9.1	7.1	8.6	8.4	8.3	6.1	5.3	3.4	5.9
Aver. of per cents.	5.8	5.1	9.8	11.3	9.6	8.1	8.4	8.4	6.5	7.8	7.3	7.4	5.0	4.6	2.9	5.0

Again, concerning those now in 8A, there was a non-promotion of 6.1 per cent. in 8A, 9.1 per cent. in 7B; 14.1 per cent. in 7A, etc., . . . to 1 per cent. in 1A. In like manner, the other grammar grades may be interpreted.

In fine, it may be said, concerning those pupils who are now in grade 8B, that the retention in grade 8B amounts to about one in seventeen; of those who are in 8B or are in 8A, it is about one in twenty in the 8A grade; of those in or beyond 7B, it is about one in ten in grade 7B; about one in nine in 7A, etc.

To account for the low percentages in the first and second

[2] In this row the averages are obtained from Table VIa as follows: e.g., There are 11 of those now in 8B who were left back in 7A grade; 14, now in 8A who were left back in 7A; 9, in 7B left back in 7A; and 25 in 7A left back in 7A. The sum of these is 59. Dividing same by the sum of the total promotions and non-promotions in grades 8B, 8A, 7B, and 7A, as recorded in the last column of Table VIa, i.e., 121+99+130 +165=515; and then changing quotient to per cent. one gets 11.5 per cent. This statement of averages is a truer one than that made in the bottom row of Table VIb, as the latter states merely the averages of gross per cents. and in doing so weights all grades alike.

grades is difficult. One may contend that the memory of the pupil in the higher grade is at fault, that he is more inclined to forget that he was left back in 1A or 1B than in the other grades. While this is possible, it certainly does not seem probable as the entire cause. Perhaps it may be due to the fact that the number of incoming new pupils is, as a rule, quite large, and in consequence there is the necessity for promoting freely in the lowest grades of the school to afford sitting room for the host of new arrivals. Again, it may be that many "under-age" pupils enter the 1A or 1B grades and, after a short time, are taken out by their parents on account of the strain and placed in the kindergarten or are kept at home for the rest of the year. These pupils if asked, later in school life, to state the grades in which they were left back would not be inclined to say that they were "held over" in 1A or 1B, provided that on their second trial, which covered a full term, they past thru these grades successfully. And it does seem reasonable to justify their attitude in this matter.

Turning to Table VIb again, one notes the large per cents. in the seventh grades. This seems to indicate that these grades are the chief stumbling blocks, serving to delay the normal progress of a considerable number and so acting with telling effect as the final weeding-out process of the incapable.

Of course, it may be argued that whereas about one-half of the pupils in the seventh grades (see Table II) are fourteen years or more, in consequence the desire to drop out and go to work, coupled with a consequent indifference to the work in these grades, makes for this high rate of "hold-overs," especially when the said pupils are not permitted by their parents to leave school. On the other hand, does not the relative time manifestation of this final selective action seem to be the natural course of events in the high school and the college as well as in the elementary school? Once a student has reached the senior year of his course, one may safely say that he will almost invariably be graduated at the end of the year; the next to the last year functioning as the ultimate selective force.

More interesting, however, than the foregoing observations

is a comparative grade study, using data furnished in Table VIb: *e.g.*, comparing those who are now in the sixth grades with those now in the fourth grades as to the number of times left back, say in the third grades:

Grades:	3B	3A	Grades:	3B	3A
In 6B grade....	6.0	6.4	In 4B grade....	14.3	10.3
In 6A grade....	10.5	5.9	In 4A grade....	9.3	14.4
	Approx. Mode=7.0			Approx. Mode=12.0	

Generally speaking, then, this means that of those who are now in the sixth grades about 1 in 14 was left back in the third grade. Whereas of those who are in the fourth grades the ratio of retention increases to approximately 1 in 8. The differences become more marked as we compare grades farther apart. To illustrate: of those now in the eighth grades it will be found that only 1 in 26 was left back in the third grades.

Now comparing the eighth and seventh grades with the fifth and fourth grades with respect to non-promotion in the third grades, one notes the following distribution:

Grades:	3B	3A	Grades:	3B	3A
8B grade	3.3	4.1	5B grade	9.5	7.1
8A grade	4.0	4.0	5A grade	8.6	13.1
7B grade	2.3	4.6	4B grade	14.3	10.3
7A grade	4.8	3.6	4A grade	9.3	14.4
	Approx. Mode=4.0			Approx. Mode=11.0	

That is, the ratio of non-promotion in the third grades, of those initial starters who are now in the seventh and eighth grades to those now in the fourth and fifth grades, is as 4 is to 11.

Even if a generous allowance is made for errors of memory, it seems justifiable to conclude that intrinsically the grades one to seven in this district are progressively harder. For the same pupil, retardation becomes more probable grade by grade till the eighth. The common view that retardation is chiefly a matter of the primary grades is certainly false for these schools, the fact being that the many pupils who are retarded in grades one to four would be retarded still oftener if they

continued in school. There seems to be no reason why, in this important particular, this district should not be representative of schools in general. At any rate, the burden of proof rests upon those who fancy that a pupil is more likely to suffer retardation in early than in late grades.

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VI

WHAT WE MIGHT LEARN FROM GERMAN SCHOOLS [1]

The superior scholarship of German schools is so generally conceded that I need not enter upon a discussion of their rights to this claim, but can begin at once with the enumeration of some of the reasons which, in my opinion, may have something to do with producing this superior scholarship.

(1) The large schoolrooms in which we make our boys study would, I am sure, be considered by German schoolmen a hindrance rather than a help to the proper performance of work. With their many opportunities for introducing disturbing elements, they certainly do not teach a boy to concentrate his mind on his studies for any length of time. This he finds hard to do, and under existing circumstances, he looks upon his own room as a place for loafing and entertaining his friends; and so, between the big schoolroom and his own room, he has really no place where he can work under favorable conditions.

(2) Our arrangement of making a preparation period precede, if possible, every recitation, would not appear to a German educator the ideal one from a pedagogical point of view. A lesson learned for only an hour can not stick in a boy's mind as long as one learned the night before and then given a cursory review just before the recitation. We forget, besides, that the preparation plus the recitation period constitutes too long a time for a youthful mind to devote to one subject and wonder that a boy comes to class with flagging interest, irresponsive at the beginning and absolutely listless at the end of the hour. And, finally, supposing a boy does not need the whole period for his preparation, does he review his lesson

[1] A paper read at the Conference of Masters in Church schools, held at St. George's School, Newport, R. I., September 16, 1909.

or study some other subject? Very rarely, I should think; generally he will consider the time thus gained as his own and fritter it away in idleness. And so the preparation period, besides being unpedagogical, will also prove very uneconomical of the boy's time and detrimental to his habits of industry.

The schedules of German schools are arranged with a view to changing more rapidly from one subject to another, thus providing for that variety which the youthful mind craves, and also on the principle that the harder subjects, such as mathematics and grammar, which require more concentrated attention, are put at the earlier hours of the day when the mind is fresh, to be followed by history, the reading of Latin, French, or English authors, and, finally, at the end of the schoolday by the wholly technical subjects, such as drawing, singing, and gymnastics.

The aim of the German teacher is also to teach as much as possible in class, especially in the lower forms, and to reduce as much as possible all outside work. He is assisted in this by a classroom well equipped with desks in which the boys can keep all their schoolbooks together with writing material, so that they can be set to do written work at any time under proper conditions. It is true that there are not as many blackboards as in an American classroom; but the German teacher prefers to appeal to the ear rather than to the eye, to the head rather than to the fingers. As a result the boy is encouraged to do most of his work in class; he has to study at home only what in the way of vocabularies or paradigms he has not been able to learn in class.

(3) The curriculums of the German schools are largely responsible, of course, for their superior scholarship. I should like to call attention to the following points:

a. Languages are begun at a much earlier age than with us. In a gymnasium Latin begins at the age of 9, French at the age of 12, and Greek at 13. In a Realschule, French or English is begun at 9 and the other modern languages at 12; these being the ages best adapted for the study of languages. And they are begun with a large number of recitations per week: Latin with 8 and sometimes 10, Greek with 6, French

with 5 or 4. As the elementary study of languages is largely a matter of memory, the lessons ought to come so often and at such short intervals that the child has no chance to forget from one recitation to another.

b. Then natural sciences are taught thruout the whole school course; that is to say, in the lower forms or grades botany, zoology, and physiology are taught by an elementary descriptive method adapted to the age of the child and appealing to his interest and imagination; the more exact study of physics and chemistry being begun at the age of 16, when it can be based on the boy's greater general and mathematical knowledge.

c. History and geography, generally coupled together, are credited thruout the school course with three or four recitations per week. German boys learn something about physical and political geography, about ancient and modern, national and universal history; whereas, it is quite possible for an American boy to pass thru school and college without ever having studied American history.

d. The place of the vernacular in the German curriculum is well exprest by the dictum generally acted upon, that German is to be the center of all instruction. On this principle German is, if possible, taught to a class by a man who teaches it in some other important subject, and nearly every instructor of a German secondary school teaches German beside his main subject so that all are equally interested in maintaining a high standard in the use of the vernacular. Great importance is attached to the German compositions and themes, which by parents and teachers are considered the highest test of a boy's ability, and to the memorizing of a long list of German poems, which have also been learned by their parents and grandparents and which in their entirety constitute the common ground on which all educated Germans meet, just as Latin was the common ground on which all educated could meet a century or two ago.

In this connection I can not refrain from speaking of the German readers. I wish some one would make a thoro study of the German reader. I have only time to mention a few

points. The most famous reader, the one that led the way, was Philip Whackernagel's, which forty years ago was used in practically all German schools. It was in three parts, for the lower, middle, and higher classes respectively. Now they have been so enlarged (but always on his lines) that they are published in six parts, one for Sexta, Quinta, and so thru all the six classes of the higher schools. They are generally edited by one head editor in collaboration with a number of experienced schoolmen. They contain, besides poetry and literature, extracts from all sorts of writers, historical, biographical, mythological, legendary, from works on botany, zoology, astronomy and all other sciences, extracts that are apt to illuminate subjects treated in school and extracts that introduce subjects that can not find a place anywhere else in the school curriculum. The teacher is supposed to be sufficiently conversant with all subjects treated to explain them, to enlarge on them, and to connect them with any other branch of study to which they are related. These readers, you see, are meant to give unity to a boy's mental acquisitions, and also to make him feel that as all knowledge comes to him thru his mother tongue, so its knowledge, use, and mastery are the aim of all the other studies that he pursues. "The Vernacular is the center of all instruction."

(4) Marks and examinations are practically unknown in Germany. Hence the superior scholarship of German schools.

Our marking system changes the teacher to a great extent into an examiner, who has to find out what the pupil knows of the lesson, for the mark is given for that, who teaches to be sure, but only if there is some time for it during and after this examination, and it makes the pupil substitute the attainment of *marks* for the attainment of *knowledge*. These are the tendencies. Fortunately, there are a great many teachers who refuse to give in to the tyranny of the marking system, and there are a great many more boys who do not need the incentive of marks and study for the acquisition of knowledge for its own sake. It is to the credit of the German educators that they have always recognized this idealism of boy nature and that they have steadfastly refused to base the acquisition

of a liberal education on the incentive of a gain of anything, even of a mark, for is not that the essential characteristic of the liberal studies, in contrast with vocational studies which directly aim at the acquisition of the means of gaining something, be it money or position?

As to examination, it would be beyond the truth to assert that German teachers never examine their classes, but these examinations are merely what we should call class tests, examinations set when a given subject is completed, with the purpose of finding out whether the foundation facts, the dates of history, the rules and paradigms of grammar, the theorems of mathematics are sufficiently fastened in the mind of the pupil to make it safe to go on with another part of the study. But there is a far step from this sort of testing a boy's examinable knowledge to the system of examinations which we have evolved in this country. The inevitable outcome of this system is cramming, and it is impossible to deny that our best teachers, when an examination is impending, stop teaching their best and confine themselves to imparting that sort of knowledge which is best calculated to help the boy pass his examinations; and the ultimate result is that when this examinable knowledge has been forgotten there is not left that invaluable residue which we call culture. There is only one examination worthy of the name that every German boy has to pass at the end of his school years, the *maturitäts-examen,* which admits him to the university. Up to that time he has been promoted from class to class solely on the united opinion of his teachers that he can go on with the next higher class, and even to the final examination he is admitted only on the recommendation of his teachers, so that being admitted he almost considers himself as having past. In Germany, then, the teacher's judgment counts for something. In fact, it is final; whereas here the colleges distrust the certificates of the schools, the schools doubt the judgment of their corps of instructors, and, worst of all, the boy revolts against the judgment of them all, and then there is the inevitable appeal to an examination which is supposed to settle the question.

(5) An institution to which German schools owe a great

deal of their efficiencies is the *ordinarius,* or *klassenlehrer,* the master in charge of a class. The instructor that teaches the most important subjects of a class or division is appointed *ordinarius* of this class. It is his duty to make himself thoroly acquainted with every boy of his class as well as with his home life and the members of his family. To him, therefore, a boy may turn in any difficulty of his moral, physical, and intellectual life. The ordinarius looks after the proper arrangement and correlation of the studies of his class; he sets the dates for handing in the German compositions and other longer exercises in languages or mathematics, so that at no time there shall be an undue accumulation of outside work. He visits the recitations of other teachers of his class, sees that class work is done at the proper time, and examines, from time to time, the notebooks in which all compositions and exercises have been neatly copied. What assists him materially in these duties is the class-book, in which every teacher notes the latenesses, absences, deficiencies, and excellences of the individual pupils at the end of his period of instruction, together with the subject treated in that period and the lesson given out to be learned. In this way the standard of the class and a high degree of efficiency in its work is maintained. Our system of departmental teaching is apt to lower the standard and efficiency in one subject by just as much as it has been raised in another by the superior energy and persistency of the men teaching it. This drawback is largely counteracted by the supervising and regulating activity of the *ordinarius.*

(6) Sports, tho not absent from a German boy's life, yet do not play such an all-absorbing part in it as to interfere seriously with his scholarship. He has perhaps as many hours a day at his disposal for recreation as the American boy, and he plays ball, tramps thru woods and over fields, and uses the rivers for rowing and swimming, but his 28 or 33 recitations a week take too much of his energy to permit him to make hard *work* of his games and sports, whereas the highly organized games and scientifically conducted sports of the American boy consume so much of his energy that he has

perforce to treat his studies lightly, and to make *play* of them, so to speak. The German boy may have to devote himself a little too much to his intellectual training, of which, by the way, he finds a splendid corrective in the one year's military service which comes to him at the end of his school time, but he is generally considered by that time to have reached a point of scholarship which our boys will never equal as long as they are permitted to put their best efforts and thoughts into their sports rather than into their studies.

(7) The last thing I should like to mention as favoring scholarship is the greater length of the German school year. The German boy gets 12 weeks of vacation, which leaves him a school year of 40 weeks, or nearly 8 weeks more than the American boy has, who often gets as much as 20 weeks of vacation and a school year of only 32 weeks. During a gymnasium course of 9 years, it will be seen, therefore, that the German boy receives 72 weeks more of schooling, which make up more than two American school years. No wonder that the German boy at the age of 18 or 19, when he leaves school, is in scholarship the equal of our college students at the end of their sophomore year.

These, then, are some of the reasons that make for the superior scholarship of the German schools. It is, however, to be remembered that this scholarship gained at school constitutes all the liberal education that a German youth receives; whereas in America the school education is supplemented by the instruction of the colleges. And here I should like to ask your attention for the consideration of a remark that was made to me almost immediately after my arrival in this country and which made a lasting impression on me. It was to the effect that, taking it all in all, an American gentleman had a much better education than a German, because, besides having gone thru school, he had had the advantages of a four years' college course.

It seems to me that, on comparing the German and American systems of education, one may come to these conclusions:

(1) That undoubtedly the American college graduate ought to be better educated than a German *abiturient*, and generally

is so if he has taken advantage of all the opportunities that his four years' college course offers him, but that

(2) The advantage is not one of four, but only of two years, since the curriculum of a German gymnasium generally embraces the studies that are pursued in the freshman and sophomore years of the college course.

(3) That the German boy reaches the end of his school education at the age of between 18 and 19 years and then goes to the university to enter upon professional studies; whereas the American college student at the end of his sophomore year is generally two years older and then has to devote two years more to his liberal education.

(4) That the age of 18 or 19 is about the limit at which we can expect a young man to be interested in studies of general culture, which are pursued for their own sakes, since a liberal education, as the name implies, does not aim at the acquisition of knowledge that can be turned to gain or profit in any vocation of life. Now, at the age of 19, it seems to me, a young man ought to begin to think of what he is going to do in life and to prepare for his life's work. Hence the reluctance or indifference with which the average college student pursues the various branches of liberal studies which the college course offers him. The same youth may become an enthusiastic worker in a technical or professional school, which shows that not he but the system was to blame.

Within a year or two I have met with expressions of opinion by college professors that seem to indicate that they have come to very nearly the same conclusions. Only a few weeks ago I read in the *Nation,* of August 26, a letter that you may have seen, but part of which I should like to read to you:

> In the opinion of one whose fate it has been to teach in both Eastern and Western institutions, in large colleges and in small, the indifference of our undergraduate to his college studies arises from the absence of any more definite aim in his curriculum than "general culture." The courses offered and to some extent prescribed are those which every "gentleman" might well know; but the undergraduate, confronting Latin, Greek, the classical French or German authors, English literary criticism, medieval and early modern history, abstract economics, and the like, realizes that these subjects have for him a purely intellectual interest and bear no vital relation to the life he will lead after gradu-

ation. Toward the sciences taught as elementary subjects his attitude is more favorable, but even there the absence of connection with the real world is felt. In brief, the colleges offer studies of a purely intellectual character, which certainly *ought* to command respect, but which certainly do not do so. The student is not literary-minded, and it is idle to criticize him harshly for being what his family and business and social interests make him, and needless to wonder at his devoting himself to such interests as seem to him alive and real. Under such circumstances, one may be allowed to doubt whether the sole remedy urged by the *Nation* year in and year out—namely, the exaction of more work and the imposition of severer examinations—would prove efficacious. Modern American men are not likely to be made scholarly by having general culture rammed down their throats. The students would undoubtedly work enough harder to insure their remaining in the college, but they would continue to consider "college life" as their real aim.

In further corroboration of my conclusions I beg leave to quote from the report of a committee on "A standard for American universities," which was adopted at the last meeting of the National Association of State Universities held at Washington, D. C., in November, 1908 (EDUCATIONAL REVIEW, April, 1909). This committee—consisting of President Bryan of Indiana, President James of Illinois, President Baker of Colorado, and President MacLean of Iowa, chairman—reports that, "in their opinion, present tendencies point to a definite differentiation in the work of the college at the close of the sophomore year toward university work in the real sense." They repeat later on in their report: "In recommending that university work begin with the junior year of the college, and that the professional schools be based on the first two years of college, the report is in line with present tendencies. It is in accord with the growing belief that the work of the last two years of college should be organized into groups that aim at more definite results and lead to greater efficiency." And they go on by saying that, besides this and other problems, "we are facing the question of the age, when the period of general education should end, and of a possible reorganization of elementary and secondary education."

President Jordan of Stanford University recommends, in his last annual report (EDUCATIONAL REVIEW, May, 1909), that "the work of the two first college years as now consti-

tuted be regarded as preparatory to the university, . . . and that the work of these two years be designated collectively as the Junior College."

Professor Coar of Adelphi College recommends, in the EDUCATIONAL REVIEW of June, 1909, a scheme of school and college education, "the net result of which would be a saving of two years for all students who obtain the A.B. degree, tho this degree would not have the same scholastic value as at present," and then says: "From the point of view of scholarly results, the writer is convinced that we keep our students too long in the leading strings of college methods, and that the effort to remedy this has introduced into our colleges methods of instruction which do not belong there. The American student is certainly not the inferior of his European colleague in natural gifts of scholarship, and if Germany, the land of scholars, can send its young men into the university at the average age of 20 (really 19) we can do likewise. Long and familiar acquaintance with the German system has convinced the writer that the eminence which that country has attained in scholarship is due, in a very large measure, to the fact that its young men are permitted to enter the fields of research before the inquisitive instinct has been dulled and at the age when it is peculiarly active."

We are all familiar with the attempts of our Eastern colleges to shorten their courses or to introduce post-graduate technical and professional courses into the junior and senior years. The same tendencies are at work here as in the West, altho none of our professors would perhaps go as far as Professor Charles Mills Gayley of the University of California, who said at the last commencement of the University of Michigan, "Let us encourage our high schools to take over the first two years' work now covered by our colleges."

Now, what is obvious from all this, is that the experience of the American colleges goes far to prove the Germans correct in drawing the dividing line between liberal and professional studies at the age of 18 or 19. Our boys generally stay at school until that age, and I want to ask, What is there to hinder the schools from completing a youth's liberal edu-

cation at that age? In other words, from taking over the work of the first two college years? I think that there is a possibility of enriching our courses without putting too heavy a burden on the shoulders or rather the heads of our boys. They are certainly as bright as the German boys, and their physical development, of which we think so much, need not suffer if we let them give to it just as much time, only not so much strenuous and exhausting effort. We need not increase their working hours per week, but by a more methodical arrangement of their work we could decrease their so-called preparation periods and increase accordingly their recitations. And since we have seen that on account of the shorter vacations a German schoolboy gets into his nine school years nearly two years more work, we can lengthen the school terms. We have gone so far, anyhow, in the length of our vacations that the demand of the parents and our own consciences will soon bring about the corresponding reaction. It is probably not possible to give up the long summer vacation of from ten to twelve weeks; the climate of the country and the habits of its people seem to demand it. But we could make systematic use of the existing facilities for summer study or establish summer schools or camps of our own. To these a boy deficient in one or in several studies could be sent for a definite period of time with his work definitely laid out for him, so that, if he made good use of his time, he could return to his school perfectly ready to go on with the work of his class. The advantage of such a system would be that the bright and industrious boy would have nothing to interfere with his summer vacation and would find in this privilege an additional incentive for exertion during term-time. In addition the term-work ought to be carried on with greater intensity, a higher standard of excellence being exacted. I should not be surprised if, after pursuing this course for a year or two, a great gain in scholarship were made, and am sure that we should find that the work now done in six (or four) years could easily be done in five (or three).

So much about making better use of the time at our command. Now as to enriching the course by additional or more

protracted studies, I should like to submit the statement that our preparatory or primary courses of study are extremely meager. And yet, how easily could we introduce into our lowest forms those natural history studies that all German schools provide—botany, zoology, and physiology—which are so readily adapted and made interesting to the child-mind. If these subjects did nothing but provide suitable and sensible reading material, they would prove invaluable both to the child's knowledge of English and its general mental development. In English it would not be amiss to adopt a list of poems for memorizing that might form a common basis of our boys' knowledge and appreciation of English letters, besides feeding and strengthening their most available faculty for acquiring knowledge, their memory.

And, as to modern languages, it is really a disgrace to find among our 14-year-old boys so few that know French or German and all of them coming from the more than well-to-do families of the country. But it is a worse disgrace (and this is to be put to the account of the schools) to find so little provision made for the continuation of French or German that may have been learned in the nursery or in early lessons with a governess. It ought not to be possible for a boy, who spoke nothing but French and German up to his sixth or seventh year, to forget all of it, literally all of it, at school, so that at the age of 14 he has to begin it all over again. It is a disgrace to our whole educational system to begin the study of modern languages at an age when the organs of speech have lost their suppleness, when the memory has lost its retentiveness, and the mind has lost that intuitive comprehension of the meanings of new words which is so characteristic of the speech-acquiring age of the human child. Modern languages, then, ought to be taught in our lowest forms or grades. The result would be that in later years there would be more time to devote to Latin, Greek, mathematics, and other studies that require a maturer mind and can not so easily be acquired at an earlier age.

We need not fear that the introduction of all these studies would overwork the children. On the other hand, it is absurd

to feed them from the age of six to twelve on nothing but the three R's seasoned with kindergarten gifts, and it is criminal to make them believe this is doing any real work.

From what I have said so far, it is evident that by enriching the curriculum of the lower forms or grades we are enabled also to enrich that of the higher forms or high-school classes. Heretofore all our efforts have been concentrated on the last three or four years of our course. We have worked from the top down, taking it for granted that the college entrance requirements mark the highest point that can be reached by a school education. Let us begin at the bottom, enlarging and enriching the curriculum, beginning with it at the age of nine, and we shall see that a boy in his nine years of schooling can go far beyond what the colleges require for admission. It would be very wrong to suppose that thirty years ago, when the college requirements were very low, schools like St. Paul's were content with the low standard then set by the higher institutions; on the contrary, our six-year course at St. Paul's School, in Latin, Greek, and mathematics, fitted a boy quite easily for the sophomore year of Yale and Harvard, and there were nearly every year a dozen or so boys at St. Paul's who, instead of entering college from the fifth form, preferred to do their freshman studies at school. And besides at a time when no college required an examination in modern languages, we taught them thruout the whole school course. As the colleges stiffened their admission requirements we first put the extra work into the last year, then into the last two, and so we have gone on, until we have reached three or four years in which we work with nothing but these requirements in view. Let us go back further, stiffen and enrich our courses in the lower grades, and we may again occupy the position that we did twenty-five years ago, that of independent schools whose aim it is to equip a boy with that liberal education which fits him for college incidentally, but principally for life and its various duties.

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VII

ART MUSEUMS AND SCHOOLS

The place and the value of the museum in the work of art schools and industrial art schools demonstrate themselves. The ethical and artistic value to the public of a museum of fine arts is generally recognized; but it can not be demonstrated by figures. It can be gaged only superficially, and that in two ways—by the number of visitors to the museum, and by the number of catalogs sold.

Almost the only methods now in force to encourage the public in the habit of museum visiting, and in the appreciation of the collections of the museum, are the open door, the occasional lecture, and the printed catalog. These things are good, and are the first to come in the development of helpful relations of the museum with the public; but there are other steps of equal importance still to be taken. Chief among these is the education of the public to a vital interest in the things which the museum collects and preserves. Judging by the success attending a well-established custom of public-library management, the surest and quickest way to increase the intelligent appreciation of the museum collections is thru the public schools.

The movement which began in England about 1856 to educate artizans, to try to make them more interested in their respective crafts and more proud of the work of their hands, had one great defect. It began with adults. Lectures, evening classes, exhibitions, museum collections, all these and other like things were quite freely supplied. High hopes were entertained of their influence on the products of English shops and factories. Those hopes have been largely disappointed. It is finally realized that the effort to awaken the desired feelings in persons already old enough to be regularly employed as artizans was, in the great majority of cases, quite futile. The

lesson was learned at last, as the recent development of the English school system shows.

Here in America the school system, which England is now trying to create, is ready to our hands. We have in every one of our cities a prodigious educational engine. There are, well within the radius of the museum's possible influence, in the public schools alone, thousands of teachers and many thousands of pupils from four to twenty years of age. These the museum can aid. Moreover, they in turn, when once interested in and friendly to the museum, can give it their influence, as they grow to maturity and pass out into the world—a support such as it can in no other way ever secure. The art museum has only to ally itself to the school system, slowly, carefully, and surely, to find countless recipients of its bounty and supporters of its aims.

It is difficult to overestimate the value to the museum of such a body of friends as efficient work with the schools will draw to it in a few years. Among the thousands who will come to the museum under skilful guidance, many will find in it mental refreshment and suggestions which will widen the horizon of their lives, suggestions or incentives for life work, or perhaps better still for life's play. These will become its active friends.

It is doubtful if at the present moment more than one per cent. of the teachers of any of our cities have a clear appreciation of the value of the kind of education, for themselves and for their pupils, which a museum can furnish; there may be four per cent. who have a vague idea that something might be and ought to be done along this line; while ninety-five per cent. would regard a visit to the museum almost as time wasted, as a thing to be done, if done at all, simply because ordered by the board of education.

This being true, the cooperation of the public-school system with the museum must be gained by definite instruction of its teachers as well as its pupils.

Suggestions looking toward the effective carrying out of this idea of the definite instruction of teachers and pupils in public schools, with a view to making practical use of and

obtaining definite results from the museum, are attempted in the following notes:

Plans for the instruction of children in *any* new subject may be approved by the president of the board of education, the superintendent and the principals of the public schools, but they can not be made effective by them; they can not be put into active and successful operation until the demand for the subject to be taught has been felt and understood by the teachers. The creation of *such* a demand can only be brought about by the constant and judicious supervision of the work by persons who are trained in such work, and who have the matter at heart. Public-school workers themselves recognize the importance of this principle and adapt themselves to it in introducing subjects which they desire to add to the curriculum—subjects such as manual training in its various branches, music, and art. For this work they create the office of "supervisor."

To introduce into the schools, then, the subject of museum instruction, by which is meant the habit of museum going, the cultivation of the appreciation of the objects in the museum, and the application of what is there learned to the pleasure of life or the business of life, it will be necessary to proceed along the line adopted by boards of education and teachers, and to create the office in the school system of "supervisor of museum instruction and appreciation."

The person to fill such a position as this must be one who understands art and its application to the art of living and of work, who understands the art of teaching, who is familiar with the public-school system and its curriculum, and who sees the way in which the study of the museum collections may be made to fit into the general scheme of instruction.

In its outline, the duties that would be required of a supervisor of museum work would be somewhat as follows: With the cooperation of the president and board of education, superintendent, principal, and, with the other supervisors of this and that subject, to arrange for the place of the museum visits and instruction in the curriculum; then to train certain of the teachers in all grades, and by teaching and example,

alone and in presence of the class, to give model instruction in, as well as enthusiasm for, his subject.

The subjects with which this museum work would be coordinated would be chiefly English, history, and drawing and design, and the results of instruction in, and visits to, the museum would probably first show in compositions.

The instruction would, as just implied, include visits to the museum, first with teachers, who would be taught an appreciation of what they see and to whom would be explained the several ways in which any given subject could be used in their work; and later with the pupils, to whom would be shown, in the manner of model teaching, the objects which had already been referred to in the classroom, or which were to be made the subject of future questions or compositions.

Among teachers who have been approached on the subject of how to make the museum useful to public schools, there is found a general desire for lectures. This seems to come to them as the easiest solution of the problem, and, so far as it relates to themselves, it is; but this is a little aside from the work which has been set for consideration here. The subject of lectures to teachers is an important one; but one which comes under the head of lecture courses, rather than public-school cooperation.

Our supervisor would not begin a general campaign thruout the city. Rather, he would, having first secured his standing with superintendent, supervisors general and special, and principals, discover here and there the teachers already equipped by training and temperament to understand the object he has in mind. Working first with these and their pupils, he would gradually extend his work as opportunity offered, giving it greater definiteness and efficiency as time went on. Casual visits, as now, would not be discouraged; many of them might be made to fit at once in some degree into the general plan. But always would be kept in mind the purpose of developing a system of museum instruction which would so demonstrate its value that it would become gradually an integral part of the course of instruction in our schools.

HENRY W. KENT

METROPOLITAN MUSEUM OF ART

VIII

THE VARYING SYSTEMS OF NOMENCLATURE IN USE IN OUR TEXTS IN ENGLISH GRAMMAR

Grammar is essentially a conceptual study. In our uninflected English tongue, the child must build up his concepts almost wholly thru a careful study of the uses and relationships of words in the sentence. Then, having reached a concept, he must test other words and constructions by this general notion. The pivotal point in this process is the concept; and, we all admit, inseparable from the real possession and grasp of a concept is its name. In other words, when a child has acquired a definite notion of a certain relationship in speech, we owe it to that child to give him a name for that relationship that will be definite, fit, and, above all, constant in value and intelligible to other understanding minds wherever and whenever he wants to use it.

Now, as to the facts. There are about fifty different textbooks in grammar in the schools of this country. There are about thirty in fairly extensive use. The writer has not been able to find two of these that agree absolutely in terminology. Some of them scarcely agree at all in terminology. That this situation constitutes the most serious hindrance, the most effective immediate barrier, that now stands in the way of the profitable teaching of grammar in our public schools, is the thesis submitted in this paper. It is a situation which, so long as we permit it to exist, will absolutely preclude effective teaching of English grammar in our public schools. It is, withal, a situation which is utterly illogical, pernicious, unfair, and unnecessary.

A child is obliged to spend much of his time learning arbitrary symbols. Names of things are, of necessity, more or less arbitrary, and a large part of his early efforts in learning

A TABLE SUGGESTIVE OF THE VARYING SYSTEMS OF NOMENCLATURE IN ENGLISH GRAMMAR

	[1] He is good	[2] This is John	[3] I know him	[4] We painted our barn red	[5] He gave me a book
	1	2	3	4	5
I. Mead	Attribute Complement	Attribute Complement	Direct Object	Objective Complement	Indirect Object
II. Webster	Attrib. Comp.	Attrib. Comp.	Direct Obj.	Objective Comp.	Indirect Obj.
III. Reed and Kellogg	Attrib. Comp.	Attrib. Comp.	Object	Objective Comp.	Indirect Obj.
IV. Mother Tongue	Predicate Adjective	Predicate Noun	Direct Obj.	Predicate Objective	Indirect Obj.
V. Whitney	Pred. Adj.	Pred. Noun	Object	Objective Predicate	Dative Objective
[1]VI. Foster	Pred. Adj. Attrib. Comp.	Predicate Nominative Attrib. Comp.	Object Complement	Factitive Attribute of the Object	Indirect Obj.
[2]VII. Carpenter	Subject Complement	Subject Complement	Direct Obj.	[2] Adjective Object Complement	Indirect Obj.
VIII. Buehler	Attrib. Comp.	Attrib. Comp.	Obj. Comp.	Objective Attribute Comp.	Indirect Obj.
IX. Lewis	Pred. Adj.	Pred. Noun	Direct Obj.	Adjective Produced	Indirect Obj.
X. Sheldon	Attrib. Comp. or Comp. of Intr. Verb	Attrib. Comp. or Comp. of Intr. Verb	Direct Obj.	Adjective Complement	Indirect Obj.
XI. Whitney and Lockwood	Pred. Adj.	Pred. Noun	Object	Objective Predicate Adjective	Indirect Obj.
XII. Kimball	Subjective Complement	Subjective Complement	Direct Obj.	Objective Comp.	Indirect Obj.
XIII. Krapp	Pred. Adj.	Pred. Nom.	Obj. Comp.	Object Complement or Objective Complement	Dative Object
XIV. Baskerville and Sewell.	Pred. Adj.	Pred. Noun	Direct Object (not a Complement)	Complement of Transitive Verb	Indirect Obj.
XV. Gowdy	Predicate	Attribute	Object	Predicate Attribute of Object	Indirect Obj.
XVI. Longmans	Adjective Attribute	Noun Attribute	Direct Obj.	Supplies *to be* and calls *our barn to be red* the object of *painted*	Indirect Obj.
XVII. Metcalf	Pred. Adj.	Pred. Noun	Object	Objective Attribute	Indirect Obj.
XVIII. Wisely	Predicate	Predicate	Direct Objective Modifier	Factitive Direct Objective Modifier	Indirect Objective Modifier
XIX. Brown and De Garmo.	Predicate Attribute	Predicate Attribute	Direct Objective Modifier	Objective Comp.	Indirect Obj. Mod.
XX. Robbins and Row	Pred. Adj.	Pred. Noun	Object of Verb	Objective Comp.	Indirect Obj.
XXI. Southworth & Goddard	Pred. Adj.	Pred. Noun	Obj. of Verb	Objective Comp.	Indirect Obj.
XXII. Swinton	Pred. Adj.	Pred. Nom.	Obj. of Verb	Attribute Complement in the Objective Case	Indirect Obj.

[1] Foster and Carpenter are published by the same house; yet they agree on only one of the five constructions.

[2] In case of a noun, as: We elected him *president*, he calls *president* the object complement.

NOTES ON THE ABOVE TABLE

1. The books named include all those which the writer found in school at the present time.

2. It is believed that they are all in use at this time, the oldest (Swinton's) being of the edition of 1878.

3. Not more than two agree absolutely upon one set of names for these five constructions, and not more than three agree approximately.

4. The constructions selected are the five most fundamental constructions of nouns and adjectives in the predicate.

5. In construction No. 4, the Table scarcely shows how great the disagreement is, since several grammars, *e. g.*, Carpenter's, Lewis's, Sheldon's, and others, have still different names for this construction when a noun instead of an adjective is used, while others make no distinction.

6. It is not merely in these predicate constructions that disagreement in nomenclature exists. There is no better agreement as to what the predicate itself is. For example: In Carpenter, page 15, we find: "The simple predicate, or indispensable part of a complete predicate, we call a verb. A verb is a word, or group of words, used as a simple predicate." Metcalf, page 54, says: "A complement, whether noun or adjective, combined with a copulative verb, forms the simple predicate." Wisely, page 23, says: "No matter how many or how few words a sentence may contain, it is always made up of three parts: subject, predicate, and copula." Thus, in the sentence *He is good,* according to Carpenter, *is* is the simple predicate; according to Metcalf, *is good* is the simple predicate; and according to Wisely, *good* is the predicate.

These matters are mentioned to show that the Table is not a garbled one, gotten up to prove the writer's contention. The facts suggested here are fairly representative of the disagreement of different texts in the whole matter of grammatical nomenclature.

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consists in associating the name with the thing. The names of things about him he finds to be fairly constant. When he learns, as an infant, the name *tree,* and associates it with its corresponding concept, he has an asset in knowledge which is constant in value wherever and whenever he wishes to use the English language. The same should be true when he gains the conception of a given construction in the English sentence. It seems puerile to be arguing this. It is axiomatic. What would we think of our teaching of arithmetic, if, with nearly every entrance upon the study of a new text, the child were compelled to learn a new name for *dividend?* Yet in the twenty-two texts in grammar named in the above table, there are nine different names given to the construction of *good* in the sentence, *He is good;* and construction No. 4 has sixteen different names. There is no better agreement in the classification of pronouns, in the naming of modes, in the treatment of substantives ending in *ing.* When his text is changed, a student is obliged to spend half his time and energy in learning the new names of things.

But the greatest mischief does not by any means end here. Scarcely one student in ten ever really masters the new nomenclature. No one who has not taught grammar can begin to appreciate the hopeless confusion that fills the minds of students taking up a new text. For over six years now, the writer has been teaching grammar classes composed, first, of students from the country schools or from the grades; second, of the weaker graduates of high schools; third, of strong graduates of high schools. In the third class, as well as in the others, it is impossible to begin the slightest step beyond the very rudiments of grammar; and even these strong students have become so confused by the varying nomenclatures of the texts they have studied that they have lost regard for, or rather, lost faith in, the existence of any reliable distinction in grammar.

This is perfectly natural. Any mind, but more particularly the young mind, considers the name of a concept to be a part of that concept. It is only the most settled and mature mind that sees a given concept exactly the same under three or four different names. Give a young person a new name for a concept and he feels that you are changing his concept. Break him of calling the word *good,* in No. 1, an attribute complement, and teach him that it is a subjective complement, and you have broken down, or at least rendered chaotic, his conception itself. The writer has seen tests and recitations in grammar go all to rack and confusion just because the questioner or teacher had one name for a construction, and his students another, or, worse, several others. On December 12, 1908, a fine examiner worked ten minutes with one of the writer's brightest students, trying to get her to remember that *what* is a relative pronoun, when she has been learning, in Mead's *Grammar,* that to call *what* a relative pronoun is a deadly sin. Now consider her state of mind with regard to *what* and relative pronouns!

But further. What must we expect when she becomes a teacher? How can we expect her to keep her footing? Is it any surprize that we find her teaching that *John's,* in *John's hat is lost,* is an adjective? or that *it,* in *It snowed,* is a noun?

Indeed, what else can we expect? Have we not bred in her a disregard for accuracy and a disbelief in any constant distinctions?

The writer realizes the position of the authors of the texts. Grammar is the science which treats of the relations of words in sentences. These sentences are exprest thoughts. Words represent the ideas in these thoughts. These ideas appeal to each man in a slightly different way. Presently, some grammar teacher gets imbued with the notion that the way in which they appeal to him is the only really true way they should appeal to any one. His way isn't set down to suit him in any text that he finds, and he says, "Go to; I will write a grammar!"

One of these new texts, published with much sounding of drums as the last word on grammar (would it might be so!), calls *strong,* in *Exercise made his muscles strong,* an object complement. Now if there has been one name that has held the fort against change with a fair degree of consistency, it is the object complement. It has continued fairly steadfastly to mean the noun or pronoun or clause or infinitive that received the action or attribute of the transitive verb. But that won't do for this author. *Strong* seems to him to be the complement of muscles (the direct object); so *strong* is christened object complement. Now picture a young teacher who has learned that an object complement must represent a substantive idea, when she finds *strong* to be an object complement. Will she see the way out of the tangle? Far more likely will she teach that, somehow, *strong* represents a substantive idea, or else she will feel that what she learned before was false.

Do you blame us teachers of grammar, if every author who comes blithely and innocently along with his mite to drop into this contribution box of chaos, remainds us of the words, "It were better for him that a mill-stone were hanged about his neck, and he cast into the depths of the sea, than that he should offend one of these little ones"? It is hard for us to write calmly of this situation. The waste, the dissipation of energy,

the absurdity, the perniciousness, and, happily, the needlessness of it, stir our very souls.

For it certainly is needless. Surely, if the matter is presented to our educators, say thru the National Education Association, those educators will see that it can not be condemned too strongly. Surely, we are not going to sacrifice the good of our students to the whims and caprices of authors of textbooks and to the temporary interests of the publishers of those books.

This plan suggests itself:

First, let the National Education Association create a competent committee to go over the whole subject and outline a system of nomenclature that will represent the nomenclature most familiar to our students.

Second, let the National Education Association go on record as favoring texts that, in all subsequent editions of their books, adopt that system.

What is impracticable in such a plan? Of course, to work it out would require patience; it would necessarily wound the vanity of some few authors who have taken great pride in naming their offspring; and it would, for a time, inconvenience the publishers; but it would be one of the very greatest single boons that could come to eighteen million school children and five hundred thousand school teachers; and it would make possible the effective teaching of the principles that underlie our language.

It is very much to be doubted whether the publishers would make serious opposition to a reasonable change in subsequent editions of their grammars. From correspondence with some bookmen, the writer knows that the publishers would meet the teachers fully halfway. The problem will be to get a representative body of teachers to agree upon a system of nomenclature to recommend to the National Education Association. But surely we teachers would be willing to make some mutual sacrifices of our pet names for grammatical constructions, when the general good of the schools so clearly requires it. Once let the National Education Association adopt and favor a certain system of nomenclature, and the publishing

houses would not be slow to incorporate it in their subsequent editions.

The writer realizes that along with this tangle of terminologies, there is a tangle of aims in teaching grammar, and of notions as to the scope of grammar and its place in the curriculum. We shall, of course, not have really right teaching of grammar until these aims and notions are clarified and unified. But this unification will be a long process. We have been working upon it ever since we broke away from Lindley Murray, or tried to break away from him; yet we still find traces of his fond notion, "If you know the rule, you will follow it," in our teaching. Furthermore, no one now has the wisdom to point out the best solution of this problem; it is, indeed, doubtful if any one notion of the exact relation between the science of grammar and the art of using English correctly would work equally well in all localities.

In this matter of nomenclature, however, we have a very definite and tangible evil—an evil that stands immediately in the way of progress in teaching English. It is an evil that need not exist. Let us do away with it; and perhaps, free from that incubus, our enhanced ability to master the science of our language will react upon our efforts to master the arts of expression; and energies now consumed in futile efforts to untangle tangled conceptions will be free to grapple more successfully with the great twofold task of inculcating right habits of speech and of teaching the principles that underlie these habits.

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IX

CURRENT EDUCATIONAL PUBLICATIONS [1]

Arnold, Gertrude Weld. A mother's list of books for children. Chicago, A. C. McClurg & co., 1909. 270p. 16°.

Prepared for home use, and accordingly classified with reference to the age, and not the school grade, of the child. The titles are preceded by an interesting introduction by Thomas Wentworth Higginson, and by appreciatory notes from the Hartford, Brooklyn, and Boston public libraries.

Bowden-Smith, A. Georgette. An English student's wander-year in America. London, E. Arnold, 1910. xii, 328p. 12°.

CONTENTS:—Introduction.—English students in American colleges.—The American at home.—Women's colleges.—Co-education.—Religious opportunity.—An historic sense.—National holidays.—The farmer.—Aesthetic training.—Domestic art and science.—"Making culture hum."—Economics and charity.—The social settler.—The school universal.—Compensations. The book is a collection of interesting and suggestive observations.

Droescher, Lili. Das kind im hause, mit 10 abbildungen im text. Leipzig und Berlin, B. G. Teubner, 1910. 65p. 12°. (Kleine beschäftigungsbücher für kinderstube und kindergarten, hrsg. von Lili Droescher, 1)

Edmonds, Franklin Spencer, *ed.* Proceedings of the dedication of the Central high school, Philadelphia, November 22, 24, 25, 26, 1902. Pub. under the authority of the Board of public education, First school district of Pennsylvania. [Philadelphia, J. B. Lippincott company, 1910] 276p. illus. 8°.

Foght, Harold Waldstein. The American rural school; its characteristics, its future, and its problems. New York, The Macmillan company, 1910. 361p. 12°.

CONTENTS:—Introduction.—The problem stated.—Organization and administration.—Rural school maintenance.—Rural school supervision.—The rural school teacher, his training.—Salaries and tenure of rural teachers.—Rural school buildings: Architecture and sanitation.—Indoor furnishing and art.—Nature study and school grounds.—School gardens.—Elementary agriculture and industrial clubs.—Manual training in one-room schools.—The library and rural communities.—Hygiene and physical education.—Consolidation of schools. "Intended for rural school teachers, superintendents, and school board members; for teachers' reading circles, normal school training classes, and all the public at large who are interested in the profound movement to make our American rural life richer and its labor more effective by means of schools adapted to the changing needs of rural society and the demands of modern life."—Pref.

Gould, F. J. Conduct stories; a volume of stories for the moral instruction of children. Issued by the Moral education league. London, Swan Sonnenschein & co., ltd.; New York, The Macmillan company, 1910. 340p. 12°.

[1] Compiled by John D. Wolcott, Acting Librarian of the United States Bureau of Education, to which books and pamphlets should be sent for inclusion in this record.

The introductory chapter is on the Art of telling stories, and is followed by fifty-four tales, which form the bulk of the book. The Appendix comprises a sketch of the Moral education league, a graduated syllabus of moral instruction and training in citizenship for elementary schools, and a list of moral instruction books.

Harvey, Nathan Albert. Principles of teaching. Chicago, Row, Peterson & co. [1910] 423p. illus. 12°.

Higgs, Mary. The evolution of the child mind. London, Froebel society of Great Britain and Ireland, 1910. 67p. 12°.

CONTENTS:—Thoughts on child psychology.—Moral development of the child (Introductory, Un-moral stage, Imitative stage, Personal stage, Altruistic stage).—Home and the school.

Hughes, Edwin Holt. The teaching of citizenship. Boston, Chicago, W. A. Wilde company [1909] 240p. 12°.

The purpose of this book is to suggest certain natural and human starting-points for the teaching of patriotism and citizenship, and some items of instruction therein which may be used by all teachers. The headings are the Need and the method, and the Lessons of instinct, breadth, cost, protection, benefit, democracy, liberty, character, and duty.

Knabe, Karl. Das deutsche unterrichtswesen der gegenwart. Leipzig, B. G. Teubner, 1910. 108p. 12°. (Aus natur und geisteswelt. 299 Bändchen)

A convenient brief manual of the existing educational system of Germany.

Leipzig. Universität. Festschrift zur feier des 500jährigen bestehens der Universität Leipzig, hrsg. von rektor und senat . . . [1409-1909] Leipzig, S. Hirzel, 1909. 4v. in 5. illus., plates, plans. 4°.

CONTENTS:—1. bd. Die Leipziger Theologische fakultät, in fünf jahrhunderten, von d. Otto Kirn . . .—2. bd. Die Leipziger Juristenfakultät, ihre doktoren und ihr heim, von Emil Friedberg.—3. bd. Die institute der Medizinischen fakultät . . .—4. bd. Die institute und seminare der Philosophischen fakultät . . . 1. t. Die Philologische und die Philosophisch-historische sektion. 2. t. Die Mathematisch-naturwissenschaftliche sektion.

Leupp, Francis E. The Indian and his problem. New York, C. Scribner's sons, 1910. 369p. 8°.

Presents a bird's-eye view of the existing situation in Indian affairs, with suggestions for the relief of some difficulties which still confront our government. Chapters 7 and 8, on education, are entitled Theory and fact in education, and Time for a turning. The author favors replacing the non-reservation boarding schools by an extension of the day-school system.

Paetow, Louis John. The arts course at medieval universities with special reference to grammar and rhetoric. Urbana-Champaign, University press [1910] 134p. 4°. (University of Illinois. The University studies, vol. iii, no. 7)

Parsons, Henry Griscom. Children's gardens for pleasure, health, and education. New York, Sturgis & Walton company, 1910. 226p. illus. 12°.

The author is secretary and practical adviser of the International children's school farm league, and director of the Department of school gardens, New York University.

Partridge, George E. An outline of individual study. New York, Sturgis & Walton company, 1910. 240p. 12°.

"This book is an outline of psychological, anthropometrical, biographical, and other methods of studying individuals . . . and will go far towards

making the study profitable as well as interesting."—Journal of education, April 21, p. 442.

Pattee, Fred Lewis. Elements of religious pedagogy; a course in Sunday school teacher-training. New York, Eaton & Mains; Cincinnati, Jennings & Graham [1909] 224p. 8°.

Comprises three parts: 1. Child study. 2. Some elements of psychology. 3. The art of teaching.

Perry, Clarence Arthur. The wider use of the school plant. New York, Department of Child hygiene of the Russell Sage foundation [1910] 12p. 8°.

"An introductory statement of the results of an inquiry into the uses which are being made of school buildings and grounds after the regular day-school hours. The information has been culled from the reports of school authorities and voluntary organizations, and also by means of correspondence, questionnaires and personal investigation. The complete results of the inquiry will be published in a book."—Pref. note.

Quick and dead. To teachers, by two of them. London, New York [etc.] Longmans, Green and co., 1909. 71p. 12°.

Papers designed to present the principles and methods of live teaching and education.

Ribera, Julián. La superstición pedagógica. Madrid, Imprenta ibérica —E. Maestre, 1910. 2v. 236, 262p. 12°.

Stone, Christopher Reynolds. Eton, painted by E. D. Brinton, described by Christopher Stone. London, A. & C. Black, 1909. xi, 174p. 20 col. pl. 8°.

CONTENTS:—Eton.—Etoniana.—Some Eton boys.—Those in authority.—Out of school.—Oppidans.—Collegers.—Reminiscences, by Rev. E. D. Stone.—College in 1900.

Talbot, Marion. The education of women. Chicago, University of Chicago press, 1910. 255p. 12°.

Surveys the field of women's activities and education, past and present, and favors for the two sexes a different development, according to sound psychological principles, of the educational machinery, so as to give to each the opportunity for being trained for such social tasks as await the well-equipped member of a modern democratic community.

Taylor, Joseph Schimmel. Word study in the elementary school. Boston, New York [etc.] Educational publishing company [1910] 177p. 12°.

Tucker, William Jewett. Personal power; counsels to college men. Boston and New York, Houghton Mifflin company, 1910. 284p. 8°.

"The discourses are uplifting and instructive in a hundred directions in which American students need guidance, but in the two respects in which college men most need challenge, the loss of scholarly devotion and the over-emphasis upon athletics, they would have been better for a more resolute iconoclasm."—Nation, April 28, p. 437.

Vetterlein, Ernst Friedrich. Die baukunst des schulhauses. Leipzig, G. J. Göschen, 1909. 2v. illus. (incl. plans) 16°. (Sammlung Göschen. [443-444])

Williams, James. The law of the universities. London, Butterworth & co., 1910. xviii, 155p. 8°.

"An attempt to do what has hardly been done before in England, to collect in one volume the law which at present can only be found in numerous unconnected authorities."—Pref.

X

DISCUSSION

THE PLACE OF HUMOR

The sense of humor is both personal and intellectual. It is personal inasmuch as it is a reflection of an inherited tendency very unequally bestowed upon mortals, to be attracted by the incongruous, the quaint, the unexpected, and to be pleased thereby. It is intellectual, for it is a purely logical operation, being the discernment of the hidden meaning of peculiar situations, of unusual combinations of conditions whose merit is that no serious consequences are involved.

I say it is purely logical. Yet for its perfect expression it demands the exercise of an imagination quick to construct in picturesque forms the situations involved. Because it is personal it may become a national characteristic, as noticed everywhere in Irish wit. Great humorists are born, as poets are born. They can not be constructed. "By taking thought" men may "add to their stature," but no more. Great humorists are among man's chiefest possessions.

The value of humor in part lies in its power to relieve all sorts of situations not too serious in their nature. The evil element in humor lies in the subtle temptation peculiar to itself of being carried to excess and used wrongfully. Human beings must for the most part be serious, for life is serious. We do not care, *e.g.*, for photographs of people when smiling, because the smile, and much more the loud laughter, can be only a temporary phase of life.

> "Life is real, life is earnest,
> And the grave is not its goal."

The end of life is work, and work to be work must be grave and serious. Playfulness carried to excess becomes emptiness.

It is not the making of puns that brings punsters into disrepute, but the excess made possible by growing habit. The habit of punning is simply a perpetual trifling with personality.

The supreme practical value of the sense of humor lies in its ability to relieve tension. Tension kills. It means strain and stress. But humor must not intervene to relieve tension when tension is essential to the achievement of some end. Until men came to appreciate the deep wealth of character and serious-mindedness of Abraham Lincoln, some of his great contemporaries misunderstood him and associated buffoonery with him. Amidst great crises and when under heaviest strain, he sought relief in the humorous. This tendency was but an expression of his nature, which everywhere and from the beginning of his career revealed itself constantly. But it was not like the flashing and rippling of shallow water. It was rather like the play of sunlight and breeze upon the face of the deep. In a remarkable and peculiar sense, also, his humor was philosophical. It was used to symbolize truth. His stories played a very great part in the effectiveness of his presentation of truth as he saw it, both in conversation and in public speech. And, further, his humor was chiefly employed not to build up the positive argument so much as to overthrow the false. His was a gift of extraordinary value. Lincoln's humor was never gross or coarse, altho at times it seemed so, because of the innate refinement of the man. It lit up his life, much as heat lightning lights up the dark clouds lying far off upon the horizon.

Humor to be helpful must be largely spontaneous. When otherwise it seems to be imported for the occasion, dragged in, as it were, without adequate reason. To be compelled to drag in anything implies that it is heavy, at least as regards him who is engaged with it.

Now the essence of real humor is that it is light, capable of quickly arising into view, and passing away in a moment. It is an instrument for transitory purposes. No gift is more fascinating in its use, because it implies great quickness of mind, self-possession, large resources. If it leaves a sting, it defeats its purpose, for then it becomes serious. Then it

assumes a baleful appearance, and when serious work is done by a disproportional agent, the sense of disproportion, of lack of balance, of lack of reason, puts one out of harmony and shocks nature. It, then, may be likened to the service of Ariel in the interest of Mars. Hence the terrible character of Swift's humor, so closely related as it was to sarcasm and irony and passing into them.

How delightful Sydney Smith, Douglas Jerrold, Charles Lamb! How the affections of the whole English world turned to Mark Twain! "His jibes, his gambols, and his merriment which were wont to set the table in a roar," offerings of days never to return, what a living, vital possession of the race. We love his memory for many hours of liberation from strenuous living. We loved him for the soundness of his inner life, which had known no bitterness, or if it had known it, had resolutely concealed it. So we loved Artemus Ward in days farther away, and so we loved, and shall ever love, the author of the tales of Uncle Remus.

Men may and should cultivate this side of life, especially all engaged in public life. Teachers and preachers especially need this development, but they also need in a particular way to guard it against excess.

The power to tell a good story well is partly an acquired one. A careful study of any given anecdote, fixing of the point and accessories, together with repetition sufficient, will accomplish the purpose. This is, however, not the main difficulty. The real test is to be able to know instantly, by a kind of intuition, as it were, when an illustration would be apropos, and to have the story ready for the occasion. But, in a true sense, people do not have anecdotes ready. Anecdotes are ready by right of their own nature and of their relationship to him who uses them. Now this situation is impossible to the ordinary man. It involves for its high development a well-stored mind, nimbleness of intellect, yet most of all such an emotional nature as is able to respond to surroundings by feeling the inspiration of the occasion. This is the secret of Celtic brilliancy, its power to be moved by the occasion.

After-dinner speakers very often lose favor from the fact

that they make very apparent their efforts to be mirthful. When one becomes conscious of a serious attempt to arouse his spirits by such resort, the matter in hand becomes too serious, or else, and what is worse, ridiculous. Such humor labors along. It is like the ass seeking to be playful with its master. If one can dissemble so that his nature seems to be expressing itself naturally rather than artificially, humor is most pleasing. Bill Nye was an artist. Burdette's *Rise of the mustache* was a work of art.

If one has no gift at all for humor it were far better for him to eschew it. Much of our modern humor is very stale. There is no resiliency in it. Much of what is true humor is possible of exhibit only under personal surroundings. In cold print it becomes profitless. The exhibit of cartoons in the *Review of reviews* is generally most mirth-provoking. Here may always be found a given number of most genuine productions of the human side of life. Nowhere can be found a finer exhibit of the close relationship existing between humor and sarcasm. Let one note, *e.g.*, those cartoons playing about the character of "Uncle Joe." On the other hand, about no character are the very mellowness and sweetness of humor manifested more delightfully than in that represented in the various attitudes of Uncle Sam, so benevolent, so interested, so homely in his goodness, so good in his homeliness, so full of sound sense, and so powerful in his simple greatness.

If one is gifted with the sense of humor, let him cultivate it. It is a genuine gift.

Finally, it is proper for any one engaged in public life to make collections of humorous stories and sayings and have them in readiness for suitable occasions. Chauncey Depew was a master of humor, and greatly increased thereby his natural powers. His stories were generally new and thoroly adapted to the purposes of his speech, and if one will read his addresses he will find they had preeminent merit. But let the man who seeks to cultivate this gift bring to bear upon the world of humor a most discriminating taste. He is playing with edged tools.

To conclude, the chief danger to the man who is not gifted

in this sense by nature is of repetition of old stories until they fall flat. Fundamentally, it is missing the point. But old stories miss the point because the point is worn off before they are delivered. A story anticipated by familiarity is properly discounted. If laughter follows, it does not spring from the story, but from some incongruity revealed in the effort, or possibly from the contagion of laughter on the part of those to whom the anecdote is new. Story-telling when made serious by evident great labor is a tedious business. It is a tedious business when carried to excess. It is the very wine of life when natural, finished, used for pure pleasure, and under perfect control.

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XI

REVIEWS

How we think—By JOHN DEWEY. Boston: D. C. Heath & Co., 1910. 224 p. $1.00.

Three essays on the problems which beset the elementary school; an effort to show the elementary school teacher how these problems may be apprehended. The title is a misnomer. It conveys an erroneous idea of the contents of this little volume. It is in reality a plea for scientific method in the elementary school, coupled with a very elementary discussion of what Dr. Harris would call the first and second stages of knowing.

It will be welcomed by the teachers in the elementary school for its wealth of illustration. Indeed, the desire to write down to the level of the reader is so marked that much criticism might be directed at a number of the illustrative examples. While treating of a scientific method and pleading for such a scientific basis in the elementary school, it would be hardly fair to apply the same reasoning to Professor Dewey's illustrations and definitions. With that in mind, being familiar with Professor Dewey's utterances and views on the same subject in other essays, one can praise his effort at simplification. Professor Dewey has correctly stated the danger of a reactionary movement back to the traditional studies, away from the broadened and enlarged courses of the day. Whether he has correctly diagnosed the disease, or adequately prescribed the remedy, is another question. It is no small thing to have stated the problem clearly enough to be apprehended by the teacher of little culture and narrow horizon.

As often, elsewhere, Professor Dewey points out the distinction between science as a method and science as subject-matter. "A student may acquire laboratory methods as so much isolated stuff, just as he may so acquire material from a textbook." "His mental attitude is not necessarily changed

just because he engages in certain physical manipulation and handles certain tools and materials." While questioning whether "the native and unspoiled attitude of childhood, marked by ardent curiosity, fertile imagination, and love of experimental inquiry," is near, in any scientific sense, "the attitude of the scientific mind," one can readily appreciate the value of Professor Dewey's painstaking attempt to find the "needed steadying and centralizing factor that makes for simplification" in the necessary modification of courses of study in our elementary schools.

The third chapter—"The training of thought,"—the crux of this volume, must be unsatisfying to the student. One finds a discussion here of propositions which presuppose a wider acquaintance with the literature on the subject than the teacher with a narrow horizon can be expected to have acquired. The customary attack of the day on linguistic study, together with a sharp indictment of the traditional course of study, is followed by an indorsement of "the intellectual possibilities of school occupations." It is admitted that "intelligent consecutive work in gardening, cooking, or weaving, or in elementary wood and iron, may be planned which will inevitably result in students not only amassing information of practical and scientific importance in botany, zoology, chemistry, physics, and other sciences, but (what is more significant) in their becoming versed in methods of experimental inquiry and proof." "That the elementary curriculum is overloaded is a common complaint." A distinguished general, finding his army in a very critical condition, called a council of war. Each one of the speakers predicted dire disaster to the army. The general congratulated them on their predictions, but said he wanted advice, not prophecy. One regrets that Professor Dewey did not think it proper to follow his destructive criticism with some definite constructive policy. Knowing Professor Dewey's constructive work in Chicago, one is left to infer that this suggestive volume is to be followed by another presenting some definite remedy in, at least, one subdivision of the present curriculum for the evils he deplores.

FRANK A. FITZPATRICK

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Broad lines in science teaching—Edited by Dr. F. Hodson, Senior Science Master of Bedales School, with an introduction by Professor M. E. Sadler of Manchester University. London: Christophers. xxxvi+ 267 p.

The twenty-one chapters in this book seem to have been written in response to a need that the range of a school's problems should be discust from the standpoint of modern science. Thus there are chapters not only on physics, chemistry, biology, and the allied subjects of nature study, geography, agriculture, hygiene, and domestic science, but also on science in the teaching of history, economic science in secondary schools, science teaching and the training of the affections, science teaching and a child's philosophy, etc.

Among the more technical chapters are the Place of hypothses in science teaching, The claims of "research" work and examinations, School mathematics in relation to school science, Coordination of physics teaching in school and college: with special reference to electricity and magnetism, The teaching of chemistry in technical schools, Engineering, Some practical notes on the planning of science laboratories. This last is by T. H. Russell, a prominent architect. Among other contributors are representatives of Oxford colleges, the universities of Manchester, Belfast, Leeds, London, and Chicago, also such schools as Bedales, Charterhouse, Letchworth, etc.

At first glance the work seems sketchy, but it has been so carefully edited that there is a real unity which makes one part serve another. Then, too, the English system of commission reports affords a background which is frequently referred to and connected with. Other works by the various authors are mentioned so that the book can easily be made the basis of an extended study. Two important aids are unfortunately omitted—there is no index and no general bibliography has been prepared. American books of value err in these matters less often than do European publications.

The introduction by Professor Sadler shows the problems arising from the two "movements of thought which have past over modern Europe and, separated by a long interval of time, have had in them enough of sustained force to sweep

thru the whole field of higher education and to give a new aim and method to the schools. The first was the classical renaissance; the second is the study of natural science. . . . Both have been efforts to win for men the right to greater liberty of thought. . . . Science has secured a place in curricula, a firm place, and respectful recognition, but scientific method and the spirit of science have not yet influenced the whole of the intellectual life of the schools, have not yet remolded the ways of teaching in other than what, in the narrower sense of the words, are called scientific subjects. . . . There is a conflict of presuppositions, a difference in intellectual forms, which could be greatly lessened, and which, even when not consciously realized, is injurious to those who learn."

It is this larger problem of science to which the projectors of this book have addrest themselves. Professor Sadler makes practical use of the principle he states in discussing briefly, but in an illuminating manner, the status of English schools with reference, not only to science teaching, but also to the relation to state control, and he shows how dependent reforms and advances in subject-matter and method are upon social organization and administration—a problem too little realized by some of our advocates of scientific education.

The large movement of science teaching in America is well shown by Professor Mann of Chicago, and the editor gives an equally valuable treatment of school science in Germany. These, with parts of the introduction, will be serviceable for students of the history of education.

The first chapter is by Mr. Badley, headmaster of Bedales School, in which the editor is senior master of science. Bedales is a coeducational boarding school in Hampshire which grew out of that significant experiment in education inaugurated twenty years ago by Dr. Cecil Reddie at Abbotsholme, and from which have sprung the "new schools" of France and Switzerland and the Land-Erziehungs-heime of Germany, about thirty in number in all. Mr. Badley and Edward Carpenter were with Dr. Reddie at the opening of the school. The influence of the latter may be traced in the chapter by

a Bedales master, Mr. Unwin (an Abbotsholme old boy), upon Science teaching and the training of the affections. Mr. Badley discusses The place of science in the school curriculum, and shows in his grasp of this problem the same large conceptions he has used so effectively in the development of Bedales. The interdependence of humanism and realism in meeting educational needs is clearly shown, as is also the larger place in the science field that can well be given to biological science and to an understanding of the scientific interpretation of the activities of the household and of other occupations. As Dr. Hodson puts it later, "Among girls especially, where the mathematico-physical and engineering interests do not elbow their way so ill-manneredly to the fore, it should be possible to reach a high standard of biological attainment." The obligation of the school to afford meaning to the vocational details of life is evident thruout the work.

One of the most suggestive chapters for American high school teachers is that on mathematics by Mr. Garstang of Bedales. He has had opportunity to work on the problem of mathematics among pupils ranging from early childhood to the years just before the university. The extent to which the average student can, under his direction, enter into the use of higher mathematics during our grammar and high school years is a striking criticism upon what we are doing. It is to be hoped that Mr. Garstang will bring his various writings upon this subject into book form more available to the general reader.

Taken as a whole, this book is a notable contribution to the literature of experimental education.

FRANK A. MANNY

KALAMAZOO, MICH.

The best single-volume history of German literature that has as yet appeared is *The history of German literature,* by Calvin Thomas of Columbia University. Professor Thomas has long since made his reputation as a scholarly student of German literature, and in the execution of the difficult task

set before him by the plan of the present volume, he has succeeded admirably. (New York: D. Appleton & Co., 1909. 440 p. $1.50.)

The part played by physical exercises and athletics in the education of girls and of young women is set forth and carefully discust in *Athletic games for women,* by Miss Gertrude Dudley of the University of Chicago and Miss Frances Pellor. (New York: Henry Holt & Co., 1909. 268 p. $1.25.)

The perennial interest in Kant and his profound influence on the world's thinking, fully justify the publication of a new introductory book upon the man and his system of thought. M. Georges Cantecor, Professor at the Lycée Lakanal, in his *Kant,* has done a service for beginners in the Kantian philosophy with true Gallic skill and clearness. (Paris: Paul Delaplane, 1909. 141 p. 1 fr.)

We are much attracted by the importance of *Exercises in arithmetic* in five books, prepared by Professor E. L. Thorndike of Teachers College, Columbia University. There are to be found here some unusual and quite scientific applications to textbook making of our knowledge of the hygiene of the eye and the neuro-muscular apparatus. The *Exercises* can be used in connection with any textbook, and a careful examination of the problems reveals the skill and sagacity with which they have been chosen. It is only to be regretted that they are not issued with the imprint of a well-known publishing house that could give them the country-wide circulation they deserve. (New York: Printed by A. G. Seiler, 1910. 5 numbers, 8c. each.)

We welcome a very interesting addition to the literature of the American Constitution. It is nothing less than the *Biographical study of the Constitution:* a study of the origin, growth, and development of the Constitution in connection with the men who have contributed most positively to its making and its history. The author is Professor Edward Elliott of the chair of politics at Princeton University. (New York: G. P. Putnam's Sons, 1910. 400 p.)

XII

NOTES AND NEWS

Military Instruction

The spring issue of the *Journal of the Military Service Institution,* containing the prize essays of the Institution, furnishes interesting and instructive reading.

The subject of the essays is twofold, the military training and education which should be required in school and college, and the degree to which legal exaction in military service is wise and compatible with our institutions. We are glad to see that the authors appreciate that no scheme of compulsory enlistment would ever be acceptable in our land, and that they are not in favor of trying to crowd military instruction in any form into the primary schools. They feel, and rightly, that the institutions enjoying the benefits of the Morrill Act should really see that the military instruction to which they have obligated themselves is honestly given, but we do not believe that any such general scheme of military training as they recommend for secondary schools and colleges is either necessary or desirable. The sorry figure that we cut at the beginning of the Spanish War, to which one of the authors refers, was not due to a lack of military training among the people at large, but to an inefficiency on the part of the handful of men at the head of things, which would be inexcusable under any military system whatever.

In style, the authors could teach many of our educational writers a lesson on the benefits of going straight at the point and sticking to it, and, tho we do not grant their premises, we can not fail to be imprest by the ingenuity of their suggestions. The winner, for example, has a plan for increasing the available supply of officers by granting government scholarships to a large number of men in the colleges thruout the country, on condition that they make military science, for

which provision is to be made in the curriculum, their major subject, and that for five years after graduation each scholar would agree to serve his country if called upon to do so. We do not feel, however, that our people are in the mood to appropriate six million and a half dollars a year to carry the scheme into effect. And this brings us to the most significant and instructive thing about the essays, the evidence unconsciously given that the writers (and this is doubtless equally true of our army officers in general) have no conception whatever of how widely the conviction is growing among the men and women who really make public opinion in this country that war is a mode of settling differences of opinion, which is not only fearfully extravagant, but rapidly becoming unnecessary.

The Reform Movement in Religious Education

"The movement for reform in the teaching of religion in the public schools of Saxony" is the subject of a monograph written by Professor Arley Barthlow Show of Leland Stanford Junior University and published upon the recommendation of Commissioner Brown by the United States Bureau of Education (*Bulletin,* 1910, No. 1—whole number 423). Professor Show's investigation has been carefully and impartially conducted and the results are presented with clear and sympathetic discrimination.

Demand for reform in *Religions-unterricht* in Germany is widespread and insistent. It not only constitutes a highly important educational problem of the country, but has become as well "an issue of the largest moment in the public mind." In general, the feeling is that religious instruction has not kept pace either in spirit or in practise with progress in pedagogy, with the results of science, and with the clarified moral and religious sentiments of the time. The immediate issue arises from the provisions, handed down from the days of the Reformation, which require confessional instruction and clerical supervision in the public schools. Against this system the teachers in these schools are making strong protest as a restriction upon the freedom of their profession and as a

hindrance to the natural development of the child. The reply of the national church is that clerical oversight and instruction in the *Shorter catechism,* at least, are due to the established alliance between church and state and are necessary to the proper training for citizenship.

In so far as the controversy deals with the relation between church and state, the situation in Saxony has for us simply an academic interest. It seems strange to note that the question of entire separation of church from state and of complete exclusion of religious instruction from public schools, tho advocated by one party, has as yet not reached the stage of enlisting a wide expression of public opinion. But the movement has a significance that makes a direct appeal to us. As Professor Show writes, "In a time when our own educational thought is beginning to take more serious concern for the demands of moral training in the schools, we have much to learn from the comprehensive ideals of our German neighbors."

These educational ideals may easily be distinguished in the proposals and counter-proposals of the respective parties, who have, with characteristic thoroness, formulated complete statements of principles and elaborated plans for instruction and use of material. Two principles are generally accepted: viz. (1) that religion is an essential subject of instruction, and (2) that both method and material must be adapted to the child mind. We cite from a manifesto "signed by nearly three hundred representative men and women of Leipzig, Dresden, Chemnitz, and other towns, among the signers being thirty-six professors in the University of Leipzig, seventeen pastors, and divers other notable persons":

> To the public school teachers of Saxony, who with unusual unanimity stood at Zwickau for a reform of the religious instruction, we hereby openly offer our warm sympathy.
>
> We, too, desire that the Christian religion should remain an essential subject of instruction in the Volksschule and see the highest aim of religious instruction in making the mind of Jesus live in the children. We, too,—and a number of us are parents of evangelical school-children—desire that in the provisions of the law the right of our teachers to fit the content and method of instruction to this aim be more clearly defined.

In particular, we urge, in the interest of an unified mind and character building among our youth, that the teacher of religion be allowed, without molestation, to follow his pedagogical conscience in the consideration of the scientific inquiry within the established course of study, and we find it to be adapted to the nature of the child mind that religious instruction be based entirely on those materials in which perceptibly religious and moral life is presented to the child, and that it lay chief emphasis on this religious and moral life and not on dogmatic formulas.

An important constructive measure of the reform party is the publication of a book for religious instruction in schools, *Im Strome des Lebens* (Leipzig, 1909). The book contains selections from the Psalms, the Gospels, and also from modern German literature, and is an endeavor "to bring before the child the best products of religious experience within the range of his comprehension." The following are the suggestive divisions of material:

I. Childhood and home.
II. Home and Fatherland.
III. In God's beautiful world.
IV. Holidays and festivals.
V. Duty to men.
VI. Diligence and joy in labor.
VII. Seedtime and harvest.
VIII. Life and death.
IX. Upward to God.

In the last analysis, as the author of the monograph points out, the debate rests on the "attitude toward religion itself." The leading reformers "adhere to the great fundamentals of Christian truth," but hold that these must be seen "thru the eyes of the men of today." In opposition, it is argued that "since Christianity is organized into confessions, *Religionsunterricht* must necessarily take the confessional form," such instruction appearing especially desirable in view of the historical development of Germany as a Christian state.

The tone of the discussion in Germany, while vigorous and searching, is not vituperative and a sincere desire to cooperate is manifest. What will be the ultimate outcome is difficult to predict. A profound readjustment of old relationships to

meet the larger demands of present-day education is going on and the principles evolved will be studied everywhere with profit.

"It will be impossible to interest the people generally in nominations for the Senate and the Assembly."—From an editorial in the New York *Tribune,* May 4, 1910.

This statement, which is probably true, is another and a very sad illustration of the rapidly growing lack of interest and confidence in the American form of government. Exhibitions of public indifference, and even of public antagonism, to the underlying principles of American government are increasingly frequent and increasingly shocking. It would doubtless take an Aristotle or an Alexander Hamilton to determine accurately the reasons for these new tendencies, but one need not be a great prophet to foretell with certainty what, if unchecked, their end will be.

There has reached us the announcement of the Grove City Summer School for 1910. From it we learn that "a great many college graduates take this work for post-graduate credits leading to the degree of Doctor of philosophy. This is the only department of the college in which non-resident students are received, but in every case a candidate for the degree must spend at least one summer at the college taking courses in the prescribed work of the post-graduate department. One summer spent at the college in this work will make it possible for earnest students to receive a degree of Doctor of Philosophy *without much difficult non-resident work"* [sic]. A subsequent paragraph, addrest particularly to clergymen, points out "that *this opportunity may not occur again."*

We are of the impression that it ought not to occur either again or at all. There is no possible objection to clergymen and others interested studying philosophy at a summer school of this kind, but to give for such work, in whole or in part, the degree of Doctor of Philosophy is to bring academic designations to an esteem still lower than that in which they are held at present.

Many influential members of the National Education Association are receiving letters, cast in much the same form as those which were so widely distributed before the Asbury Park meeting in 1905, urging them to support a certain person for election as President of the Association when it meets at Boston, on grounds which have nothing whatever to do with educational service or fitness. We wish we could convey to those who are responsible for this sort of political canvassing how offensive it is to the older members of the Association who have pride in its past traditions and who dislike to see the attempt made to use it as an instrumentality for personal or factional aggrandizement.

Apparently the yellow journals of the country have secured a recruit in an unexpected quarter. In view of some articles recently published in the *Atlantic monthly* the question is being seriously asked whether the *Zeitgeist* has invaded even that sanctuary.

In addition to the colleges noted in the EDUCATIONAL REVIEW for May (page 539), both Amherst and Williams have adopted the new college entrance requirements in Latin.